I53.2:SU8/2

U.S. Department of the Interior
Bureau of Land Management

Prineville District Office
P.O. Box 550, 185 East. 4th Street
Prineville, Oregon 97754

March 1995

Sutton Mountain Coordinated Resource Management Plan (CRMP)

ak

95-024164

MARCH 3, 1849

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Prineville District Office
P.O. Box 550 (185 E. 4th Street)
Prineville, Oregon 97754

In Reply Refer To:
4000

Dear Sutton Mountain Planning Participant:

The enclosed environmental assessment for the Sutton Mountain Coordinated Resource Management Plan (CRMP), presents some reasonable alternatives for managing the block of 64,500 acres of public land between Mitchell, OR, and the John Day River. This is the final phase in developing a CRMP for the area. A detailed description of the process is given below. Please review the enclosed document and either provide us with your written comments or come to our office during the "open house" because public participation is an important part of our management process.

Please note that the management actions we recommend, as a land management agency, are described in the Management Common To All Alternatives and Alternative D sections.

Process

1) The public comment period will last for 45 days, from March 20 to May 4.

2) There will be an "open house" at the BLM's Central Oregon Resource Area Office in Prineville. It will be April 20 and 21 (Thursday and Friday), between 8 AM and 5 PM. This will be an opportunity to stop by an talk with someone in person. The office is located at 2321 East Third Street, about three-quarters of a mile east of the Ochoco Thriftway Store, on the north side of the road.

3) All the public comments will be reviewed and considered in developing the final CRMP. The final CRMP will be issued as a Proposed Decision and a copy will be mailed to you for a 30 day review period. If no protests or appeals are received during that time, implementation of the CRMP can begin.

If you have any questions about the review process, please call me at (503) 447-8731.

Sincerely,

Harry R. Cosgriffe

Harry R. Cosgriffe
Central Oregon Resource Area Manager

Enclosure: As stated above.

I

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Prineville District Office

STATE AND LOCAL GOVERNMENT, AND OTHER AGENCY NOTIFICATION

1. TO: **Interested Interagency Reviewer** **File Code No. : 1792**
Case File No.: OR-054-2-44
Publication or Issue Date: March 16, 1995
Public Comment Date: April 17, 1995

2. SUBJECT OF NOTICE: **Sutton Mountain Coordinated Resource Management Plan**

3. LOCATION (County(s), Township, Range, Section, Subdivision(s)): **Wheeler County**
Township 10,11 South, Range 20, 21 East

4. TIMING OF PROPOSAL: **Notice of Availability, EA and FONSI**

5. PRINCIPAL BLM CONTACT:
Name: **Lyle Andrews**
Phone No.: **503-447-8715**
Office: **Prineville Distict, BLM**
Address: **P.O. Box 550, Prineville, OR 97754**

6. AFFECTED STATE DEPARTMENTS: **Fish and Wildlife, Extension Service, State Lands**

7. AFFECTED COUNTY AND LOCAL GOVERNMENTS: **Wheeler County**

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9. CONSISTENCY DETERMINATION STATUS:

a. ☐ a separate consistency determination is not required at this time because the proposed action was described in an earlier plan and the action found to be consistent with the applicable elements of Land Use Plans.

b. ☐ The Bureau action constitutes a permit or agreement which would facilitate a State or local government program or project, therefore a consistency determination is not required. If a State program or project, it has been certified by DLCD and incorporated into the OCMP or if a local government program or project, it implements a portion of a comprehensive plan which has been acknowledged by DLCD.

c. ☒ A consistency determination is required. The determination is ☒ included within the attached document(s), or ☐ is enclosed, but separate from the primary documents for distribution to interested State agencies.

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FINDING OF NO SIGNIFICANT IMPACT (FONSI)

Environmental Assessment (EA) Number: OR-054-2-044

Title of Action: Sutton Mountain Coordinated Resource Management Plan

BLM Office: Prineville District Office

Findings of No Significant Impact:

Based on the analysis of potential environmental impacts contained in the attached EA, I have determined that impacts to the human environment are not expected to be significant and an environmental impact statement is not required.

The attached EA adequately explores the environmental consequences of the proposed action and is sufficiently correlated to the Two Rivers EIS and most recent Two Rivers RMP, ROD and RPS. These documents are available to the public from the Prineville District Office.

All the alternatives described in the EA would result in no significant environmental effects to the human environment. Alternatives A, B, D and E describe management actions that would result in the improvement of riparian and aquatic habitats for redband trout and summer steelhead. In addition, the condition of the watershed would be improved. Alternatives A, B and D would result in these environmental improvements while accommodating the existing multiple-use activities - livestock grazing, recreation and agriculture.

Area Manager   3/9/95
Date

Attachments:
as stated above

/X

SUTTON MOUNTAIN COORDINATED RESOURCE MANAGEMENT PLAN

Environmental Assesment Number OR-054-2-044

X

TABLE OF CONTENTS

I. Introduction 1

II. Issues 5

III. Management Goals and Objectives 13

IV. Management Direction by Alternative 16

- A. Management Common to All Alternatives 16
  - Access 16
  - Buildings 16
  - Cultural, Historical and Paleontological . . . 16
  - Noxious Weeds 16
  - Recreation 17
  - Wilderness Study Areas 17
  - Buildings 17
  - Wildlife Habitat 17
  - Areas of Critical Environmental Concern . . . 18
  - Visual Resource Management 18
  - Water Rights and Agricultural Lands 18
  - Livestock Grazing 24
  - Monitoring, Evaluation and CRMP Modification . 25

- B. Alternative A - Emphasize Commodity Production . . . 29
  - Access 29
  - Leasable Minerals 29
  - Noxious Weeds 29
  - Recreation 29
  - Special Status Species - Plants 31
  - Visual Resource Management 31
  - Upland Vegetation Manipulations 31
  - Water Rights and Agricultural Lands 33
  - Livestock Grazing 34
    - Grazing Systems 39
    - Projects 44

- C. Alternative B - Emphasize Commodity Production While Accommodating Natural Values 46
  - Access 46
  - Leasable Minerals 46
  - Noxious Weeds 46
  - Recreation 46
  - Special Status Species - Plants 46
  - Visual Resource Management 46
  - Upland Vegetation Manipulations 48
  - Water Rights and Agricultural Lands 48
  - Livestock Grazing 48
    - Grazing Systems 53
    - Projects 57

D. Alternative C - Continue Existing Management 59
- Access 59
- Leasable Minerals 59
- Noxious Weeds 59
- Recreation 59
- Special Status Species - Plants 59
- Visual Resource Management 59
- Upland Vegetation Manipulations 61
- Water Rights and Agricultural Lands 61
- Livestock Grazing 61
  - Grazing Systems 62
  - Projects 66

E. Preferred Alternative
Alternative D - Emphasize Natural Values
While Accommodating Commodity Production 68
- Access 68
- Leasable Minerals 70
- Noxious Weeds 70
- Recreation 71
- Special Status Species - Plants 71
- Visual Resource Management 71
- Upland Vegetation Manipulations 74
- Water Rights and Agricultural Lands 74
- Livestock Grazing 76
  - Grazing Systems 79
  - Projects 84

F. Alternative E - Emphasize Natural Values 85
- Access 85
- Leasable Minerals 85
- Noxious Weeds 85
- Recreation 85
- Special Status Species - Plants 85
- Visual Resource Management 86
- Upland Vegetation Manipulations 86
- Water Rights and Agricultural Lands 86
- Livestock Grazing 86
  - Projects 86

V. Affected Environment 89

A. Resource Values 89
- Air Quality 89
- Climate 89
- Cultural/Historical 89
- Energy and Minerals 89
- Fish and Aquatic Habitat 90
- Native American Religions 93
- Native American Traditional Interests 93
- Noxious Weeds 93
- Paleontological 94
- Riparian 94
- Soils 96
- Special Status Species 97
  - Plants 97
  - Animals 99
- Vegetation 100
- Visual Resources 100
- Water 100
- Wildlife Habitat 100

B. Resource Activities and Land Uses 101
    Access 101
    Livestock Grazing 101

VI. Environmental Impacts by Alternative 103

A. Items of No Impact 103

B. Resources 103

1. Impacts to Cultural and Historical Resources . 103
    Access Proposals 103
    Livestock Grazing Proposals 104

2. Impacts to Fish and Aquatic Habitat Resources 104
    Access Proposals 104
    Noxious Weed Proposals 104
    Wilderness Study Area Proposals 105
    Upland Vegetation Manipulation Proposals 105
    Water Rights and Agricultural Lands Proposals 105
    Livestock Grazing Proposals 106

3. Impacts to Noxious Weed Infestations 110
    Access Proposals 110
    Upland Vegetation Manipulation Proposals 110
    Livestock Grazing Proposals 111

4. Impacts to Paleontological Resources 111
    Access Proposals 111
    Livestock Grazing Proposals 111

5. Impacts to Riparian and Wetland Resources . . 111
    Access Proposals 111
    Water Rights and Agricultural Lands Proposals 111
    Livestock Grazing Proposals 111

6. Impacts to Soil Resources 113
    Access Proposals 113
    Noxious Weed Proposals 114
    Visual Resource Management Proposals . . 114
    Upland Vegetation Manipulation Proposals 114
    Water Rights and Agricultural Lands Proposals 114
    Livestock Grazing Proposals 115

7. Impacts to Special Status Species 116
    Plants 116
        Access Proposals 116
        Livestock Grazing Proposals 116
    Animals 116

8. Impacts to Vegetation Resources 117
    Access Proposals 117
    Noxious Weed Proposals 117
    Upland Vegetation Manipulation Proposals 117
    Water Rights and Agricultural Lands Proposals 117
    Livestock Grazing Proposals 118

9. Impacts to Visual Resources 119
   Access Proposals 119
   Upland Vegetation Manipulation Proposals 120
   Water Rights and Agricultural Lands Proposals 120
   Livestock Grazing Proposals 120

10. Impacts to Water Resources 121
   Access Proposals 121
   Water Rights and Agricultural Lands Proposals 121
   Livestock Grazing Proposals 121

11. Impacts to Wildlife Habitat Resources 122
   Access Proposals 122
   Noxious Weed Proposals 122
   Wilderness Study Area Proposals 123
   Upland Vegetation Manipulation Proposals 123
   Water Rights and Agricultural Lands Proposals 123
   Livestock Grazing Proposals 124

12. Impacts to Wilderness Study Areas and ACEC Special Status Species 128

C. Cumulative Impacts 128

VII. List of Preparers and Signatures 129

Appendices 131

A. Glossary 131
B. Cultural Resource Use Categories 133
C. Oil, Gas and Geothermal Leasing Stipulations 134
D. Allotment Selective Management Categories 134
E. Standard Spring Development Specifications 135
F. Standard Fence Specifications 136
G. Standard Cattleguard Specifications 137
H. AUM Determinations by Alternative 137
I. Summary: Grazing Allotment, Public Land Acres and Public Land AUMs 143
J. Projects 143
K. Visual Resource Management (VRM) Classifications . . . 151
L. Special Status Terrestrial Species 151
M. Wilderness Study Area (WSA) Inventory Summaries . . . 152

List of Tables

1 A Rated Weeds 5
2 B Rated Weeds 5
3 Agricultural Fields with Water Rights 23
4 Allotment Categorization 25
5 Upland Treatment Areas, Alternatives A and B 32
6 Upland Seeding Mix and Application Rate, Alternatives A and B 32
7 Agricultural Lands - Seed and Application Rate, Alternatives A and B 34
8 Public Land Acres and Allowable AUMs, Alternative A 35
9 Carroll Rim Allotment - Grazing Schedule, Alternative A 39
10 Circle Bar Allotment - Grazing Schedule, Alternative A 39

11 Crown Rock Allotment - Grazing Schedule, Alternative A 41
12 Sutton Mountain Allotment - Grazing Schedule, Cattle Option, Alternative A 43
13 Sutton Mountain Allotment - Grazing Schedule, Sheep/Cattle Option 44
14 Project Summary, Alternative A 45
15 Public Land Acres and Allowable AUMs, Alternative B 49
16 Sutton Mountain Allotment - Grazing Schedule, Cattle Option, Alternative B 56
17 Sutton Mountain Allotment - Grazing Schedule, Sheep/Cattle Option, Alternative B 57
18 Project Summary, Alternative B 58
19 Public Land Acres and Allowable AUMs, Alternative C 62
20 Carroll Rim Allotment - Grazing Schedule, Alternative C 63
21 Crown Rock Allotment - Grazing Schedule, Alternative C 64
22 Sutton Mountain Allotment - Grazing Schedule, Alternative C 66
23 Road Rehabilitation - Seed Mixture, Alternative D . 70
24 Upland Treatment Areas, Alternatives D and E 74
25 Upland Seeding Mix and Application Rate, Alternatives D and E 75
26 Agricultural Lands - Seed and Application Rate, Alternatives D and E 76
27 Public Land Acres and Allowable AUMs, Alternative D 77
28 Carroll Rim Allotment - Grazing Schedule, Alternative D 79
29 Crown Rock Allotment - Grazing Schedule, Alternative D 80
30 Sutton Mountain Allotment - Grazing Schedule, Cattle Option, Alternative D 83
31 Sutton Mountain Allotment - Grazing Schedule, Sheep/Cattle Option, Alternative D 84
32 Project Summary, Alternative D 84
33 Project Summary, Alternative E 87
34 Percent of Habitat Type By Canopy Closure 91
35 Number of Units By Habitat Type With Cut Banks . . . 91
36 Temperature Categories and Total Days 92
37 Sutton Mountain CRMP, Occurrence of Noxious Weeds - 1993 94
38 Sutton Mountain CRMP, Present Grazing Status 102
39 AUM Determinations, Alternative A 137
40 AUM Determinations, Alternative B 139
41 AUM Determinations, Alternative C 140
42 AUM Determinations, Alternative D 141
43 Summary - Public Land Acres and AUMs by Allotment . 143
44 Fence Improvements, All Alternatives 143
45 Summary - Fence Improvement Totals (Miles), All Alternatives 145
46 Cattleguard Improvements, All Alternatives 146
47 Summary - Cattleguard Improvement Totals (Each), All Alternatives 146
48 Spring Improvements, All Alternatives 147
49 Summary - Spring Improvement Totals (Each), All Alternatives 149
50 Summary - Project Totals by Alternative 150

List of Maps

A Sutton Mountain CRMP Area 2
B Grazing Allotments, Existing Situation 7
C Agricultural Fields With Water Rights 9
D Mineral Estate 11
E Wilderness Study Areas 19
F Proposed Areas of Environmental Concern 20
G Visual Resource Ratings 21
H Noxious Weeds, Yellow Star Thistle 22
I Roads/Public Land Access, Alternative A 30
J Grazing Allotments, Alternative A 36
K Project Implementation, Sutton Mountain Allotment, Cattle Option 37
L Project Implementation, Sutton Mountain Allotment, Sheep/Cattle Option 38
M Roads/Public Land Access, Alternative B 47
N Grazing Allotments, Alternative B 50
O Project Implementation, Sutton Mountain Allotment, Cattle Option 51
P Project Implementation, Sutton Mountain Allotment, Sheep/Cattle Option 52
Q Roads/Public Land Access, Existing Situation, Alternative C 60
R Existing Projects, Existing Situation, Alternative C 67
S Roads/Public Land Access, Alternative D 69
T Project Implementation, Sutton Mountain Allotment, Cattle Option, Alternative D 72
U Project Implementation, Sutton Mountain Allotment, Sheep/Cattle Option, Alterative D 73
V Grazing Allotments, Alternative D 78
W Project Implementation, Alternative E 88
X Proposed Wilderness Study Area (WSA) Boundaries . . 155

End

Environmental Assessment, Number OR-054-2-044

Sutton Mountain Coordinated Resource Management Plan

Part I. Introduction

A. Background and Coordinated Resource Management Plan Boundaries

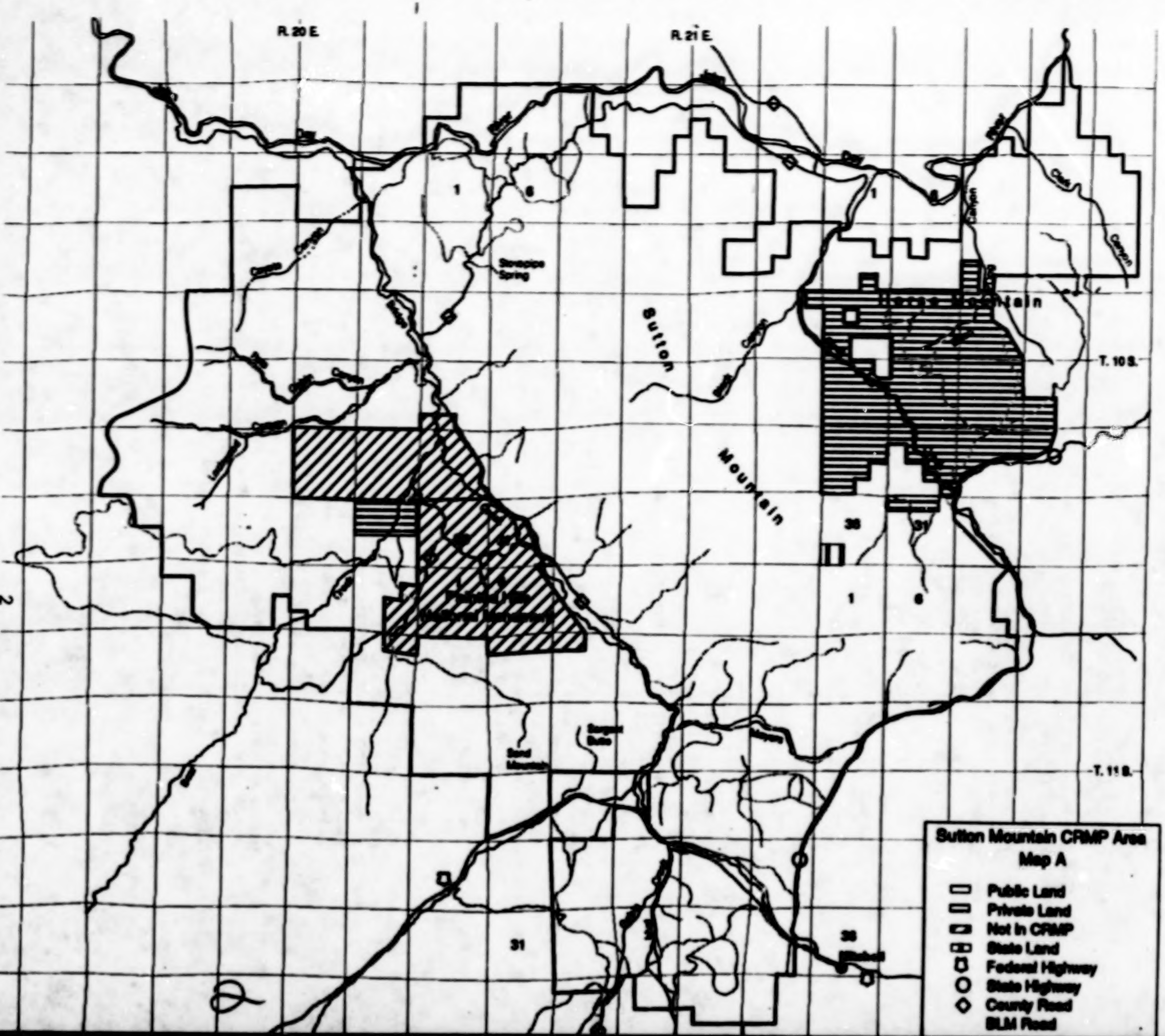
The Coordinated Resource Management Plan (CRMP) area originally consisted of approximately 16,500 acres of public land managed by the Bureau of Land Management (BLM). The Sutton Mountain Land Exchange, which began in 1987 and was completed in 1992, added an additional 48,000 acres of private land to public ownership for a total of 64,500 acres. (See Map A, Sutton Mountain Coordinated Resource Management Plan Area.) The exchange disposed of public lands that were small, isolated parcels of land and created a large block of land which is manageable, accessible and usable by the public.

Prior to the exchange, the public lands in the Sutton Mountain area consisted mainly of areas with steep slopes. The vegetation varied from good to poor condition and the soils were mainly shallow and rocky. The public land contained only 0.2 miles of riparian habitat along Bridge Creek.

Ranch ownership varied over the years with some ranches changing hands several times from the 1800s to the present. Ranch boundaries were not static either, various properties were combined and others sold were off at different times. The area was almost exclusively grazed by sheep until about 1946; however, by 1950 the kind of livestock had changed from sheep to cattle.

Generally, the grazing pattern from the mid 1800s to the mid 1900s was to use the lower elevation rangelands during the spring for about three months and then move to higher elevations for the summer. Use was made again in the fall for a couple of months depending on the weather and forage conditions. During the winter livestock were kept pastured near the ranch headquarters and on some type of feeding program; however, during breaks in the winter weather, when the soil would warm and some "green-up" occurred, livestock, especially sheep, would be turned out on the range.

During this hundred years or so, the CRMP area contained basically four ranches, although, part of a fifth one was present during the 1900s. Each ranch had one and sometimes two bands of sheep with one ranch having about 150 cows. It is estimated that the domestic stock used from 4,000 to 5,000 AUMs each year from the CRMP area. Added to this amount of use was an additional 1,000 to 1,500 AUMs from about 100 wild horses which used the area extensively from the early 1900s to the 1950s. As a result, the total amount used was between 4,000 to 6,500 AUMS. This may even be a conservative estimate because it was a common practice for ranchers to trail their animals long distances to obtain summer pasture, and sometimes their rate of travel was slow with the stock consuming forage along the way. This practice occurred to some extent each year as ranchers from other locations trailed their livestock through the Sutton Mountain area.


Sutton Mountain CRMP Area
Map A

The overall grazing pattern changed from the mid 1900s to the present (prior to the Sutton Mountain Land Exchange). Ranch ownership and boundaries seemed to change more frequently and the kind of livestock changed from sheep to cattle. The periods of use and number of animals became more varied, but basically the heavy use period was spring. The AUM level may have varied greatly from year to year for various reasons. Although, the wild horses were removed, some pockets of excessive use occurred, such as, in the Gable Creek area and south of the Painted Hills National Monument where the area was grazed year long by cattle for several years in succession. The heavy use caused severe damage to some bunchgrass and riparian communities. Also, because a couple of the ranches changed ownership frequently, there was a tendency to overstock an area to maximize profits for the short term.

Within about the last twenty years, the amount of livestock use, both in numbers and time, has decreased. This has allowed the vegetation to improve in condition, particularly in the upland areas, but also in some riparian zones.

B. Purpose and Need

The purpose is to establish a long range Coordinated Resource Management Plan to provide a framework for future use and management of the natural resources. The area contains a variety of valuable natural resources that need management to prevent deterioration and continue improvement. Grazing management would be established on eight separate grazing allotments.

Four important fish species are found in the Bridge Creek and John Day Rivers. Chinook salmon, summer steelhead, redband rainbow trout and the Pacific lamprey are considered by the State of Oregon and the BLM as special status species. Currently, the steelhead is listed as a Species of Concern by the Oregon Department of Fish and Wildlife. The status of Chinook salmon populations are reviewed by the National Marine Fisheries Service regarding listing under the Endangered Species Act (ESA). The redband trout is listed as a Category 2 Species by the United States Fish and Wildlife Service. The Pacific lamprey is an important fish to native Americans. Present information indicates that the numbers of these fish are declining and may be listed for protection under the ESA. Therefore, the BLM considers these fish to be Special Status Species. This means that the BLM shall not carry out management actions which contribute to the need to list these species under the ESA and shall conserve these species and their habitat consistent with the principles of multiple use and sustained yield.

The Sutton Mountain area occurs within lands ceded to the U.S. Government by ratified treaty in 1855 with the American Indians of Middle Oregon. Under Secretarial Order No. 3175, the rights of the American Indians and the responsibilities of the U.S. Government regarding treaty provisions are to be a major consideration of any planning effort which may effect treaty related resources.

C. Coordinated Resource Management Plan Process

Alternative D, Emphasize Natural Values While Accommodating Commodity Production, is the Preferred Alternative. This means, that if no comments are received which would justify a change, the Preferred Alternative would become the final CRMP along with the proposals contained in the Management Common to All Alternatives section. The final CRMP would also include the Goals and Objectives section.

Based on the analysis of the public review comments, Alternative D may be modified or another Alternative chosen as the preferred. Also, based on public input, any part of this document may be changed. As a result, the final decision of what the CRMP will contain depends on the comments from the public, recommendations from the various BLM resource specialists and the conclusions reached by the BLM managers.

D. Public Involvement

An ad hoc working group, consisting of fifteen members from outside the BLM, was established to provide information to help in the development of the alternatives. The group covers a broad spectrum of interests in resource management and includes members from both private and public interests. The group met several times over a three-year period.

A scoping document was mailed to 612 people who had expressed an interest in public land management in the Prineville District. It presented 13 resource management issues along with five different management alternatives of how to deal with the issues. After a 45-day public review period, the responses were summarized and mailed to the ad hoc members for their information.

E. Relationship to Bureau Planning

Goals and directions provided in the 1986 Two Rivers Resource Management Plan would serve to guide and establish management limits for activities proposed on public lands in the Sutton Mountain CRMP area.

The proposed alternatives are consistent with the goals and objectives of the Two Rivers RMP and Record of Decision. The proposed CRMP is consistent with this document because it would maintain a reasonable level of commodity production while improving riparian, fish, and wildlife habitat, and provide recreation opportunities for the public.

Part II. Issues

A. Noxious Weeds

Issue: What should be done to reduce, eradicate, or prevent the establishment and spread of noxious weeds?

Issue Description: The noxious weeds listed on the Wheeler County "A" and "B" Lists are a major concern; see Tables 1 and 2. With funding and aggressive action weeds on the "A" List could be eliminated. Those on the "B" List could be controlled and further expansion prevented. Control of a noxious weed is obtained when the population is reduced to a level where the weed causes no significant environmental and economic damage. There are dense populations of noxious weeds which could be replaced by native plant species to reduce soil loss and benefit wildlife and livestock. The introduction of additional noxious weeds into the area would be a concern. Species which occur in the CRMP area are indicated with a check mark (✓).

Table 1

"A" RATED WEEDS			
Bearded creeper		Musk thistle	
Camelthorn		Purple starthistle	
Dyers woad		Rush skeletonweed	
Italian thistle		Squarrose knapweed	
Leafy spurge		Tansy ragwort	
Mediterranean sage		Yellow starthistle	✓

Table 2

"B" RATED WEEDS			
Dalmatian toadflax		Kochia	✓
Canada thistle	✓	Medusahead rye	✓
Field bindweed (Morning glory)	✓	Perennial pepperweed	
Jointed goatgrass		Poison hemlock	✓
Klamath weed (St. Johnswort)		Puncture vine	✓
Diffuse knapweed	✓	Scotch thistle	✓
Russian knapweed	✓	Water hemlock	✓
Spotted knapweed		White top	✓

"A" Rated Weeds: This is a weed of known economic importance which occurs in the state in small enough infestations to make eradication/containment possible; or not known to occur, but its presence in neighboring states make future occurrence seem imminent.

"B" Rated Weeds: This is a weed of economic importance which is regionally abundant, but of limited distribution in other counties.

B. Livestock Grazing

Issue: Where should livestock grazing be allowed and how should it be managed in order to maintain or improve condition and trend in riparian and upland areas?

Issue Description: The traditional use of these lands has been for livestock grazing primarily cattle, sheep and horses. Some past livestock grazing practices have adversely affected the condition of anadromous fish spawning and rearing habitat, critical mule deer winter range, upland bird and waterfowl habitats and parts of the Bridge Creek watershed. There are numerous cases where properly managed livestock are compatible with meeting other resource objectives; however, if improperly managed, severe resource damage can occur. Improved livestock grazing practices should be used so that the vegetation condition will improve. The Sutton Mountain area has a high potential for vegetation improvements to benefit both wildlife and livestock. There are eight grazing allotments in the Sutton Mountain CRMP area. (See Map B, Sutton Mountain CRMP; Grazing Allotments - Existing Situation).

C. Watershed/Vegetation/Wildlife Habitat Management

Issue: What should be done to maintain/improve the quality and quantity of desirable plant species for the protection and enhancement of watershed and riparian conditions, fish and wildlife habitat, and biological diversity?

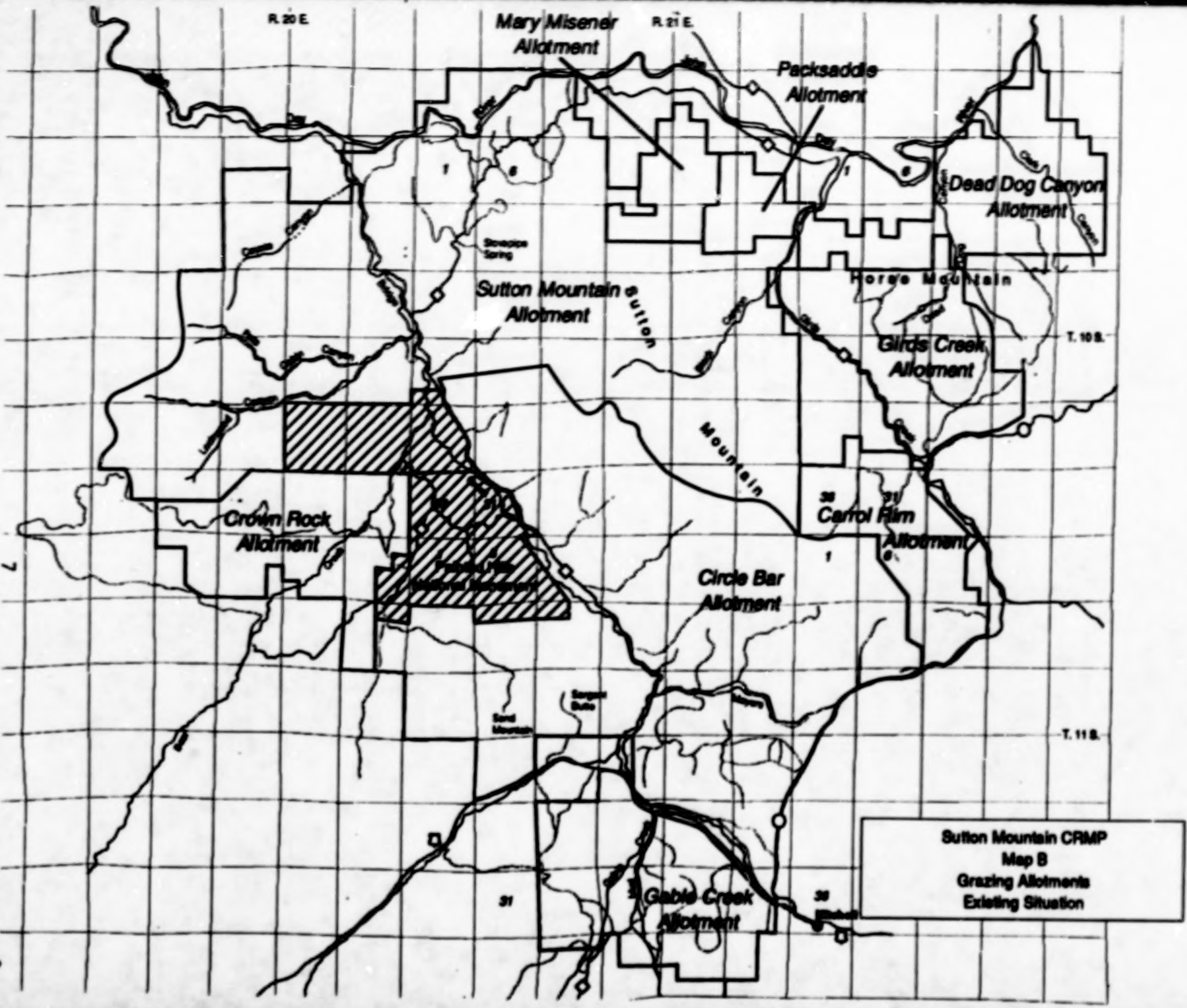
Issue Description: A wide range of watershed conditions exist in the area from excellent to very poor. Poor watershed condition and low biological diversity tends to be common at the lower elevations and in drainage bottoms. On these areas there is ample opportunity to increase the abundance of desirable native plant species.

A key part of any watershed is the quality of the water. The Sutton Mountain area has five perennial streams (Bridge, Gable, Nelson, Girds, Bear and Meyers Creeks) and many intermittent streams. Water quality assessment work is being conducted, but the streams are presently thought to be below the Minimum Water Quality Standard for the State of Oregon. One major objective, common to all the alternatives, will be to achieve the State of Oregon's Minimum Water Quality Standard on all the above perennial streams.

D. Water Rights/Agricultural Lands

Issue: How should cultivated lands and their attached water rights be managed?

Issue Description: There is approximately 415 acres of agricultural land with attached water rights. These cultivated lands can provide benefits for wildlife by producing various irrigated crops. Some of the tillable lands are leased to private individuals for the purpose of crop production. However, the more acres that are tilled and irrigated, the more water that is



Sutton Mountain CRMP
Map B
Grazing Allotments
Existing Situation

removed from perennial streams which contain fishery values. Some water is presently being removed for irrigation during the summer months (July, August and September).

There are twelve agricultural fields which have attached water rights. (See Map C, Agricultural Fields). Four of the fields are presently being irrigated and cropped - John Day River, Priest Hole, Unsworth and Eighteen Acre. The following fields are grouped by the stream they are near.

Bridge Creek:	Upper Owens, Lower Owens, Highway, Unsworth, Horse Fields, Eighteen Acre, 92 Field, Manning and Connolly
John Day River:	Priest Hole and John Day River
Gable Creek:	Gable Creek

E. Cultural/Paleontological

Issue: How should cultural and paleontological resources be managed?

Issue Description: The newly acquired lands contain cultural and paleontological resources which have not been inventoried, evaluated for significance, or recommended for specific use categories (see the Summary of Cultural Use Categories) or management actions. As greater public attention is focused on these lands for competing uses, the need for a variety of carefully considered management options (e.g., public education, accommodation of scientific study, site protection measures, etc.) will increase. The management of these resources will be based on Federal law, which governs their preservation and/or promotion as appropriate.

F. Special Status Species

Issue: How should the habitat of special status species be managed to ensure their survival?

Issue Description: Existing laws and Bureau policies have established certain requirements pertaining to the management of all special status species. As a result, known populations of special status species and their habitats are being closely monitored. Within all the categories, except officially listed T&E species, BLM shall conserve these species and their habitat consistent with the principals of multiple use management.

The numbers of anadromous fish in the Columbia River Basin have been dramatically reduced. In 1991, the Northwest Governors and the region's Congressional delegation asked the Northwest Power Planning Council to look at all impacts on salmon and devise a comprehensive, regionally and economically balanced salmon recovery plan. The BLM considers the Chinook salmon, summer steelhead, redband rainbow trout and the Pacific lamprey as sensitive species in the John Day Basin. Because of this, major emphasis is being placed on improving fish habitat in the CRMP area.

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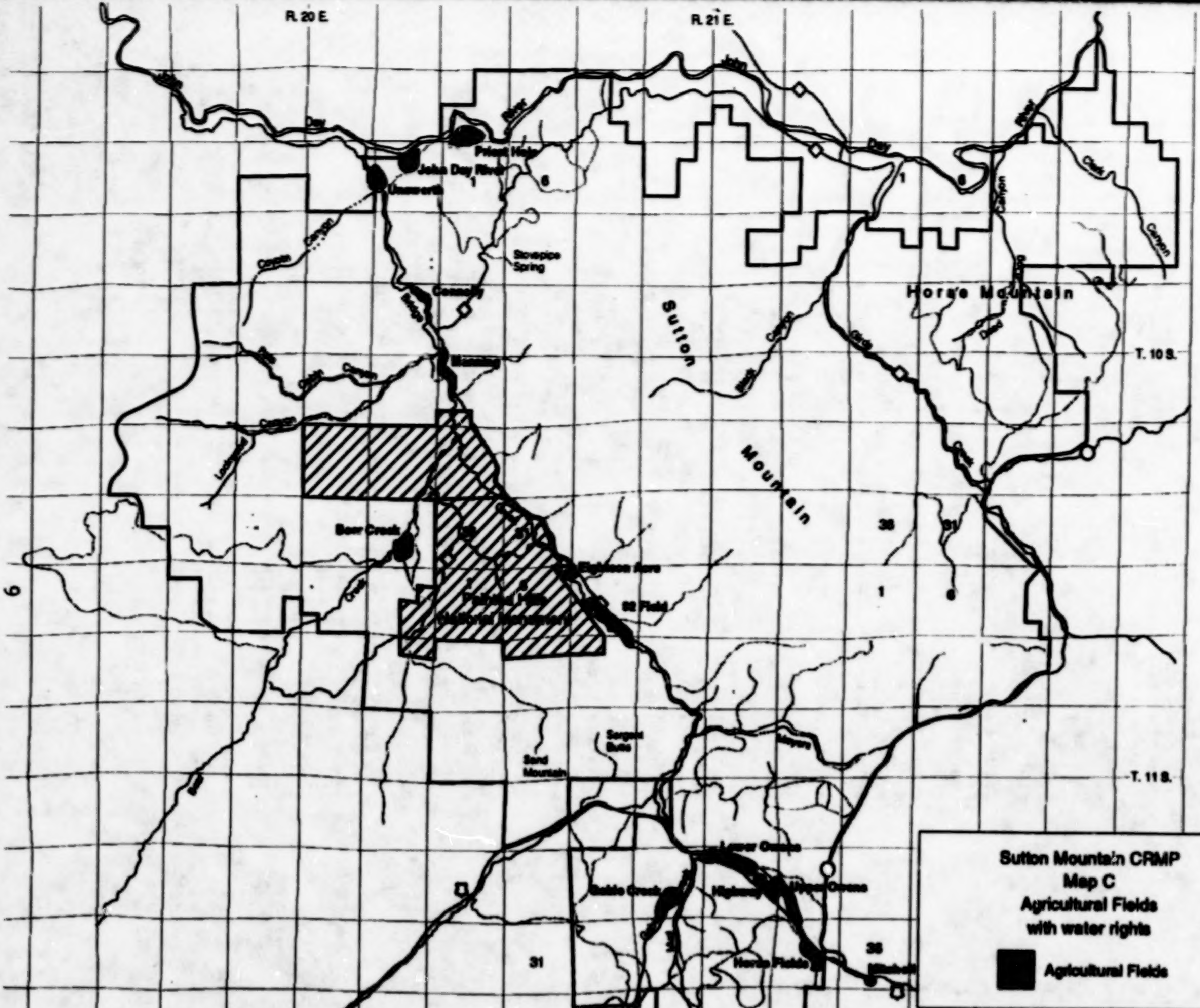

Sutton Mountain CRMP
Map C
Agricultural Fields
with water rights

■ **Agricultural Fields**

G. Recreation

Issue: What recreation opportunities should be provided?

Issue Description: The number of visitors to the Sutton Mountain area has increased since the land exchange. There is a demonstrated need for developed recreation facilities, but the question is how much, what kind and where should they be located.

H. Minerals

Issue: How should mineral activities be managed to provide for mineral exploration and development.

Issue Description: Conflicts related to mineral exploration and related rights-of-way may become a problem as other uses increase over the newly created block of public land. The exploration and development of leasable, locatable and salable mineral and energy resources in the Sutton Mountain planning area is currently minimal; however, about half the subsurface minerals are privately owned. (Refer to Map D, Mineral Estate). Some potential exists for oil and gas, gold, gravel, crushable rock and bentonite. Presently, there is only one active gravel pit, located in Meyers Canyon, which is used by Wheeler County.

The BLM policy for managing mineral and energy resources follows the general principle that public lands will remain open and available for mineral exploration and development, except where withdrawal or other administrative limiting actions are clearly justified. Also, the BLM plans and decisions will recognize that mineral exploration and development can occur concurrently or sequentially with other resource uses.

Management of mineral activities would be consistent with the guidance provided by the Two River RMP.

Leasable Minerals Some potential exists for discoveries of oil and gas. Because of this likelihood, various alternatives to the management of this resource are dealt with under the Alternatives section of this document.

Locatable Minerals No management alternatives have been developed for this mineral resource because the chances of any exploration and development work occurring is minimal; however, should any activity start occurring, the development would be guided by the requirements in the Two Rivers RMP for locatable mineral development.

Salable Minerals The potential exists for further development of gravel and crushed rock sources. The management of this resource would be the same under all alternatives.

I. Buildings

Issue: What should be done with the existing buildings?

Issue Description: The majority of the structures on the acquired lands have probably been located. Presently, there are nine one-room cabins and two houses. The Owens House, about two miles west of Mitchell, has one barn and two out-buildings associated with

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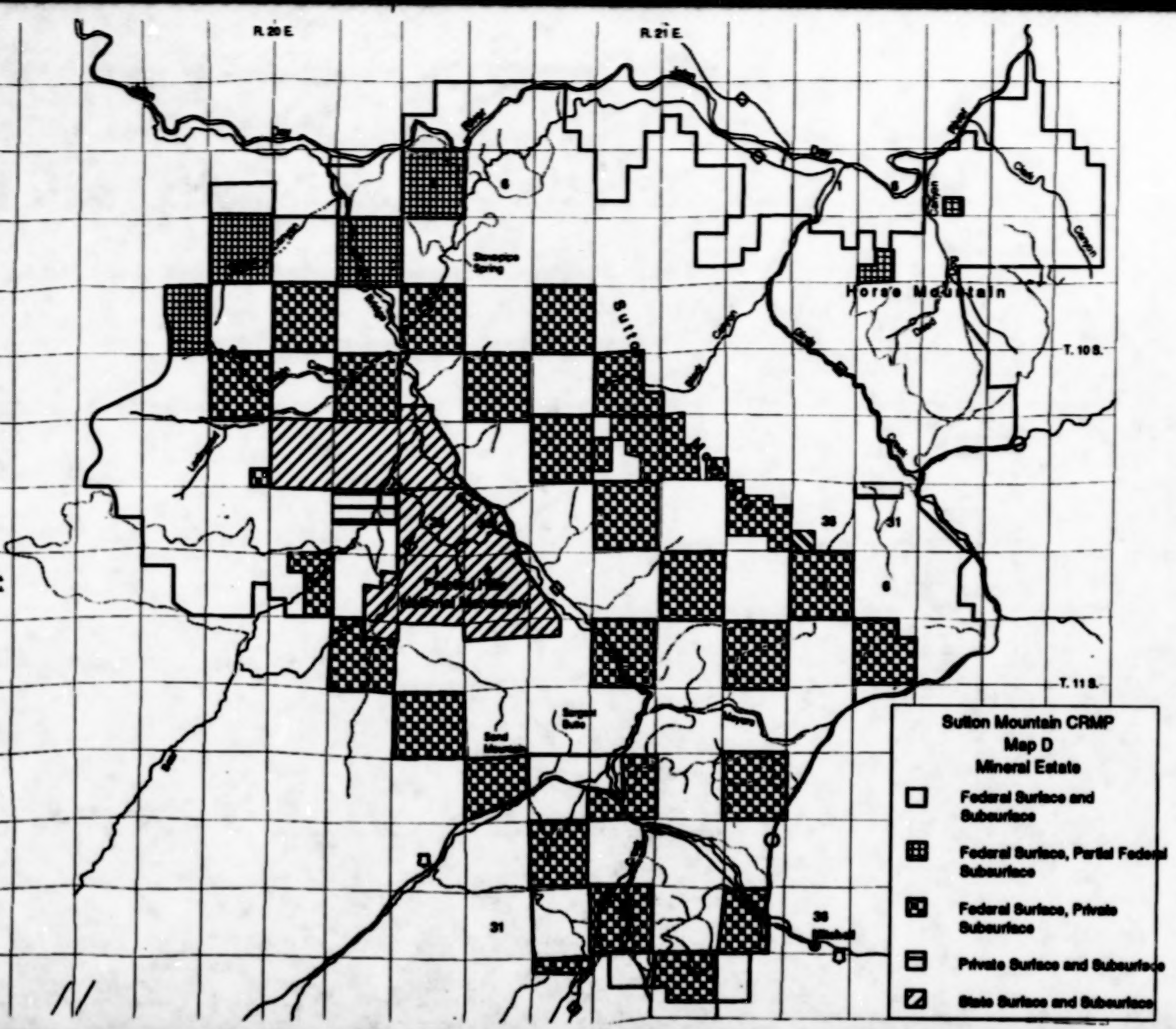

R. 20 E.
R. 21 E.
T. 10 S.
T. 11 S.
Stovepipe Spring
Horse Mountain
Sutton Mountain
Sand Mountain
Sargent Butte
Mitchell
6
1
36
31
6
31
36

Sutton Mountain CRMP
Map D
Mineral Estate

Federal Surface and Subsurface
Federal Surface, Partial Federal Subsurface
Federal Surface, Private Subsurface
Private Surface and Subsurface
State Surface and Subsurface

it. The second house, the Connolly Place, has a small garage/storage building next to the house. The existing structures will be evaluated to determine their eligibility for the National Register of Historic Places. There may even be a potential to rebuild some structures and give them some kind of a functional use.

J. Public Land Access

Issue: How should vehicular access to public land be managed to allow for administrative and other public land uses?

Issue Description: The road network for the Sutton Mountain area is composed of Highway 26, four different county roads and several lesser roads, in varying condition, which originate from the county roads. The question is which of these non-county roads should be kept open to the public, kept for administrative use only or closed and rehabilitated. Refer to Map N, which depicts the road system and existing road closures.

Part III. Ecosystem Management Goals and Objectives

A. Goals and Objectives

1. Agricultural Lands

GOAL Manage all agricultural fields to minimize the occurrence of noxious weeds and reduce soil erosion.

OBJECTIVES See Noxious Weeds and Soil.

2. Livestock

GOAL Manage livestock grazing in a manner that is consistent with improving or enhancing other resource values.

3. Noxious Weeds

GOAL Eradicate Wheeler County Category A Rated Weeds and control Category B weeds. (See Part II.A. Tables 1 and 2).

OBJECTIVES

a. Conduct an inventory for noxious weeds, within the CRMP area, by the fall of 1995.

b. Develop a weed eradication and control plan by the beginning of 1996.

4. Recreation

GOAL Provide recreation facilities and access that would be designed to emphasize visitor enjoyment and experiences which would complement other recreational uses in the vicinity. Also, provide long-term protection and enhancement of other resource values.

5. Riparian

GOAL Develop and maintain a diverse, native plant community, provide soil cover, bank stability and help in water storage.

OBJECTIVES See the Riparian Enhancement Section of Part B - Objectives for Salmon Summit.

6. Soil

GOAL Decrease soil erosion by increasing ground cover and providing stabilization projects where needed. Methods used could include, but not limited to, seeding of native vegetation, juniper control, proper grazing management, prescribed burning, closing roads and rehabilitating and maintaining those roads that remain open.

7. Special Status Species

GOAL Insure that no action would impose an unacceptable risk to species or their habitat and those actions would not contribute to the need to list any of the special status species under the

Endangered Species Act. (See Part V., Affected Environment, Special Status Species).

8. Wildlife Habitat and Vegetation Diversity

GOAL Manage vegetation for increased wildlife habitat with emphasis on diversity and specific seasonal needs such as winter browse. Give particular attention to the habitat needs of special status species. Manage non-agricultural vegetation for diversity of seral stages.

OBJECTIVE Strive to obtain approximately 10 to 25 percent in each of the early and climax stages, and 20 to 40 percent in each of the mid and late stages.

9. Water Resources

GOAL Maintain or improve water quality at all water sources. Ensure that BLM water rights are utilized as required by existing State law and manage to help maintain minimum stream flows in Bridge Creek and the John Day River.

10. Visual Resources

GOAL Manage the environment to maintain it's natural scenic quality with special attention in areas seen by visitors traveling roads, floating the John Day River, and for other frequently used recreation sites. Manage structures, roads and other developments to blend into the existing scenery.

B. Objectives for the Salmon Summit

To fulfill the objectives of the Salmon Summit as stated in Volume II, "Strategy for Salmon", 1992, the BLM is implementing the Northwest Power Planning Council's habitat objectives, policies and performance standards and complying with the State of Oregon water quality standards. The following are specific objectives listed in the Strategy for Salmon.

Sediment

1. Limit the percentage of fine sediments (less than 6.4 millimeters) in salmon and steelhead redds to no more than 20 percent just prior to fry emergence relative to a control point located upstream.
2. Insure no long term increase in sediment input from implementing measures.

Water Temperature

1. Water temperature is not to exceed 68°F.
2. During spawning, water temperatures should range between 39 to 49°F.
3. During rearing, water temperatures should range between 45 and 58°F.

Water Quality

1. Dissolved Oxygen

   Concentrations of dissolved oxygen shall not be less than 75 percent of saturation at the seasonal low or less than 95 percent of saturation in spawning areas during spawning incubation, hatching and fry stages of salmonid fishes.

2. Turbidity

   No more than a 10 percent cumulative increase in natural stream turbidity as measured relative to a control point immediately upstream of the turbidity causing activity.

3. pH

   pH values shall not fall outside the range 6.5 - 8.5.

4. Bacteria Standards

   No more than 200 fecal coliform per 100 milliliters of sample, relative to a control point at a public land/private land boundary.

5. Total Dissolved Solids

   Concentrations shall not exceed 500.0 mg. per liter.

Riparian Enhancement

1. Retain existing shade vegetation in riparian areas to supply woody debris in the stream.
2. Increase standing and down large and small woody debris.
3. Improve the quality and quantity of existing habitat.
4. Initiate actions to increase shade and revegetation of riparian habitat, standing and down large woody debris and small woody debris in areas where water quality standards are not being met.
5. Increase vertical heights and horizontal cover of total deciduous riparian shrubs and tree community.

Part IV. Management Direction by Alternative

A. Management Common to All Alternatives

1. Access

Exception to all vehicle closures would be given to law enforcement, fire suppression, and other emergency personnel while engaged in emergency purposes; BLM employees or contractors while engaged in official duties as approved by the authorized officer; and any other person whose use of a motorized vehicle is officially approved. All open roads (except for county roads) would be signed as "open" by using a green metal dot attached to a wood post and all unsigned roads would be considered closed. If some road closures are repeatedly violated, it may be necessary to indicate a closure by signing and/or the use of barricade, locked gates, cables, logs, large rocks, or water bars.

2. Buildings

Presently, there are nine known cabins and two ranch houses with various outbuildings. All known structures would be recorded and evaluated for possible National Register listing before any actions are taken which may affect them. Assignment to one or more of the Cultural Resource Use Categories would be determined during the evaluation process. (See Appendix A).

3. Cultural and Paleontological

All recorded cultural sites would be evaluated in accordance with Section 106 of the National Historic Preservation Act prior to any proposed actions and recommend assignment to one or more of the Cultural Resource Use Categories. (See Appendix A, Cultural Resource Use Categories). Cooperative efforts with other entities to manage selected cultural and paleontological resources would be encouraged.

As money and personnel become available, a Class II (sample) survey strategy would be implemented, in accordance with the Archaeological Resources Protection Act (1979, as amended), to identify and record significant cultural resources. The area would also be inventoried for significant paleontological resources as money and personnel are available.

4. Noxious Weeds

Target Weeds Control efforts would be based on the current Wheeler County list of "A" and "B" rated noxious weeds. (See Part II.A.) Control would not be limited to the species listed on the A and B lists. If a known noxious weed is discovered in the CRMP area, control efforts would be initiated.

"A" Rated Weeds They are defined as a weed of known economic importance which occurs in the state in small enough infestations to make eradication/containment possible; or not known to occur, but its presence in neighboring states make future occurrence seem iminent.

"B" Rated Weeds They are defined as a weed of economic importance which is regionally abundant, but of limited distribution in other counties.

Control Methods Control methods would be consistent with the guidance provided by the Northwest Area Noxious Weed Control Program

Environmental Impact Statement (EIS), Two Rivers Resource Management Plan and the Prineville District Noxious Weed Environmental Assessment. The EIS lists the acceptable chemicals, maximum application rates, and application methods for herbicide treatments on public lands.

Inventory Reports from BLM field personnel and the public would be the primary method of weed identification and location. Also, any Ecological Site Inventories (ESI) would provide this information.

92 Acre Field The south half of the field, approximately 45 acres, was plowed and seeded during the spring of 1994. It will be irrigated to establish the seeding and it will be rested for two consecutive years.

The north half of the 92 Acre Field may continue to be grazed according to the existing cooperative agreement.

Proposed Treatment Areas Existing areas of yellow starthistle infestations are shown on Map H. These areas would be treated by the methods allowed under whichever alternative is chosen. Some areas on Map G are included in the dryland seeding treatment proposals under Alternatives A, B and D. Those areas of starthistle which are included in a dryland seeding would be treated according to methods proposed under the seeding.

5. **Recreation**

Campground Development Campground and Boat launching facilities would be developed at Priest Hole through an independent planning document. All other areas would be open to dispersed camping and recreation use (motorized access would be permitted as described in the access sections). The most heavily used sites would be evaluated for the location of additional designated campgrounds or for permanent closure on a case by case basis. Additional campgrounds would be developed through subsequent planning efforts and for the purpose of resource protection. All recreational facilities located within the John Day Wild and Scenic River boundaries would be in compliance with the management plan for said river as well as State Scenic Waterway guidelines.

Trails Trails would be developed in the planning area through independent planning documents.

6. **Wilderness Study Areas**

Two Wilderness Study Areas (WSA) would be designated (See Map E, Wilderness Study Areas and Appendix L, Wilderness Unit Description). The WSAs would be managed in a manner as to not impair the units wilderness characteristics in compliance with H-8550-1, Interim Management and Policy Guidelines for Lands Under Wilderness Review. The areas would be managed under this policy until such time the Congress and the President determines to either designate the areas as Wilderness or release them from further wilderness consideration.

7. **Wildlife Habitat**

Special Status Species - Animals The BLM would determine the distribution, abundance and current habitat conditions for Special Status Species in two manners. First, an inventory will be completed prior to any project which is expected to alter existing uses of natural or manmade habitats such as buildings. This information will then be used to design that project. Secondly, information on distribution will be collected on specific animals by inventory for those animals and for all species by recording field observations. Over time this information will create a distribution map for each species. A current list of species and definitions of status categories is contained in Appendix A, Glossary.

General Wildlife All actions proposed within the CRMP will be analyzed to assess the impacts on wildlife habitat. In most cases this assessment will be looking at and recommendations will be made which will promote a trend toward increased diversity in all habitat components. Exceptions may be made in situations where some wildlife species requires a specific set of habitat conditions, but in those situations the associated EA will specify those conditions.

Prior to any physical alternations to the buildings, they would be inventoried for special status species.

8. Areas of Critical Environmental Concern (ACEC) - Proposals

Three ACECs have been proposed. (See Map F, Proposed Areas of Critical Environmental Concern). Two ACECs are nominated for their unique scenic values and one ACEC/NRA for it's plant communities. No management actions would be taken which may compromise their unique resource values. A determination as to the suitability of these areas for ACEC designation must be made in an amendment to the Two Rivers RMP.

9. Visual Resource Management (VRM)

All new land altering activities would follow VRM classification standards. (See Map G, Visual Resources).

10. Water Rights and Agricultural Lands

a. Irrigation Stipulations

The ten agricultural fields, located along Bridge and Gable Creeks, would have the following water use stipulation as part of any Special Use Permits that would be issued for the purpose of irrigation. The stipulations would help meet minimum instream flows developed by ODF&W. (See Map C, Agricultural Fields/ Water Rights).

Bridge Creek Water Use Stipulation: When the flow falls to 15 c.f.s., all agricultural lessees, on BLM fields, would be notified that irrigation would be terminated if and when the flow reaches 10 c.f.s. Flow measurements would be taken at the US Geological Survey gauging station located along Bridge Creek above Coyote Canyon.

The John Day River and Priest Hole Fields, located along the John Day River, would have the following water use stipulation as part of any Special Use Permits that may be issued for the purpose of raising crops.

John Day River Water Use Stipulation: When the flow falls to 573[1] c.f.s., all agricultural lessees, on the two BLM fields, would be notified that irrigation would be terminated if and when the flow reaches 500 c.f.s. Flow measurements would be taken at the US Geological Survey gauging station located along the John Day River at Service Creek.

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[1] The mean July discharge from 1930 to 1993.

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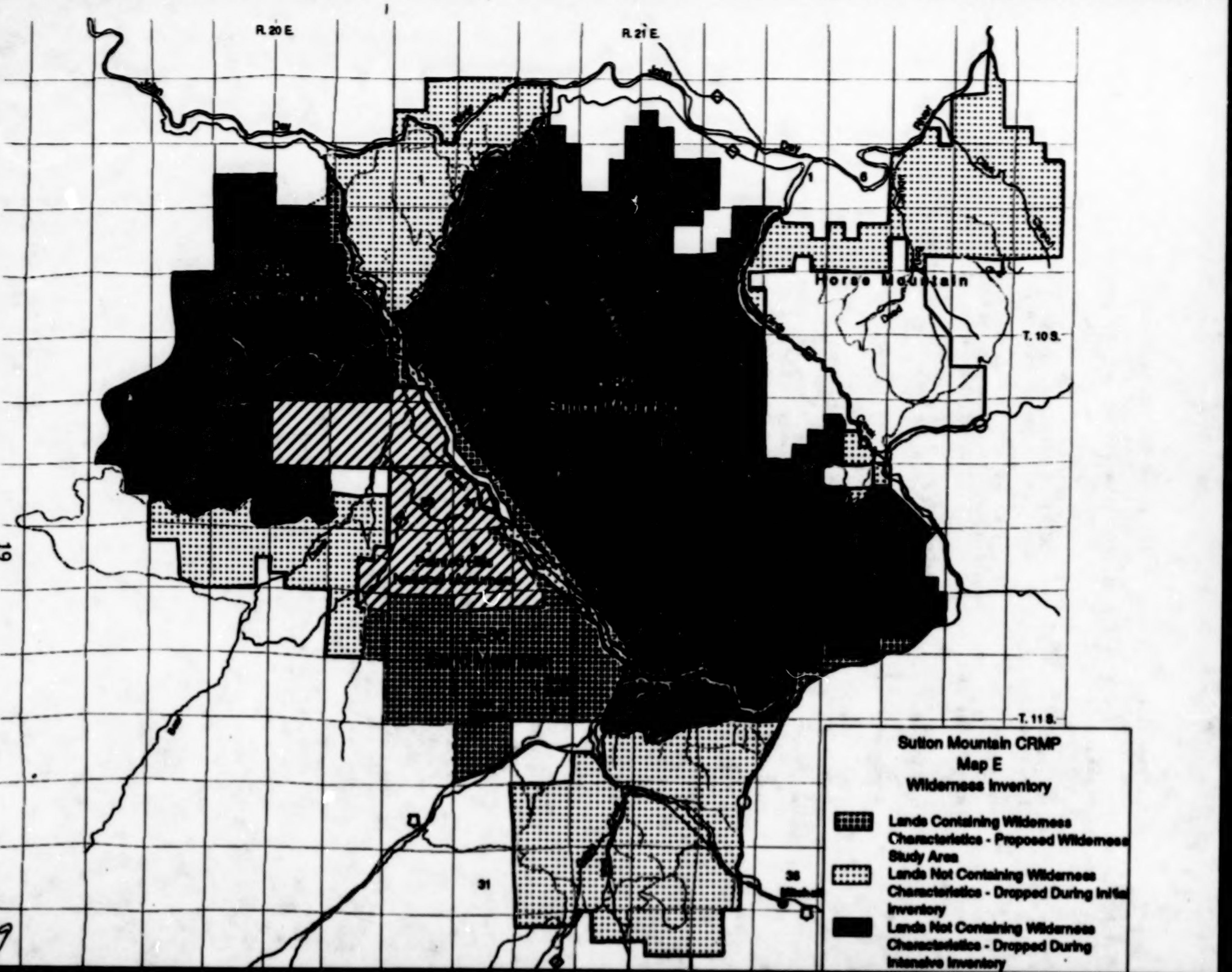
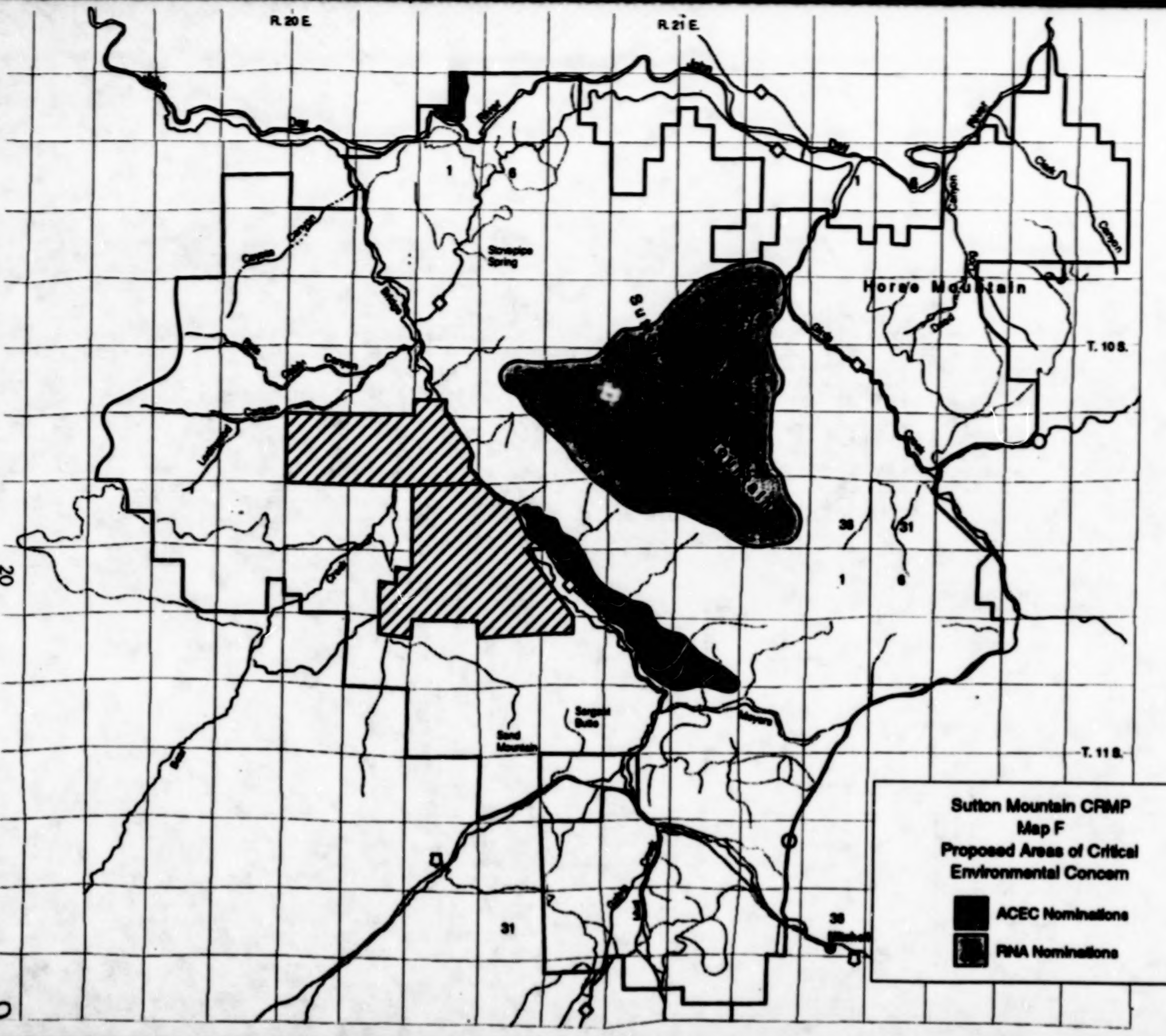
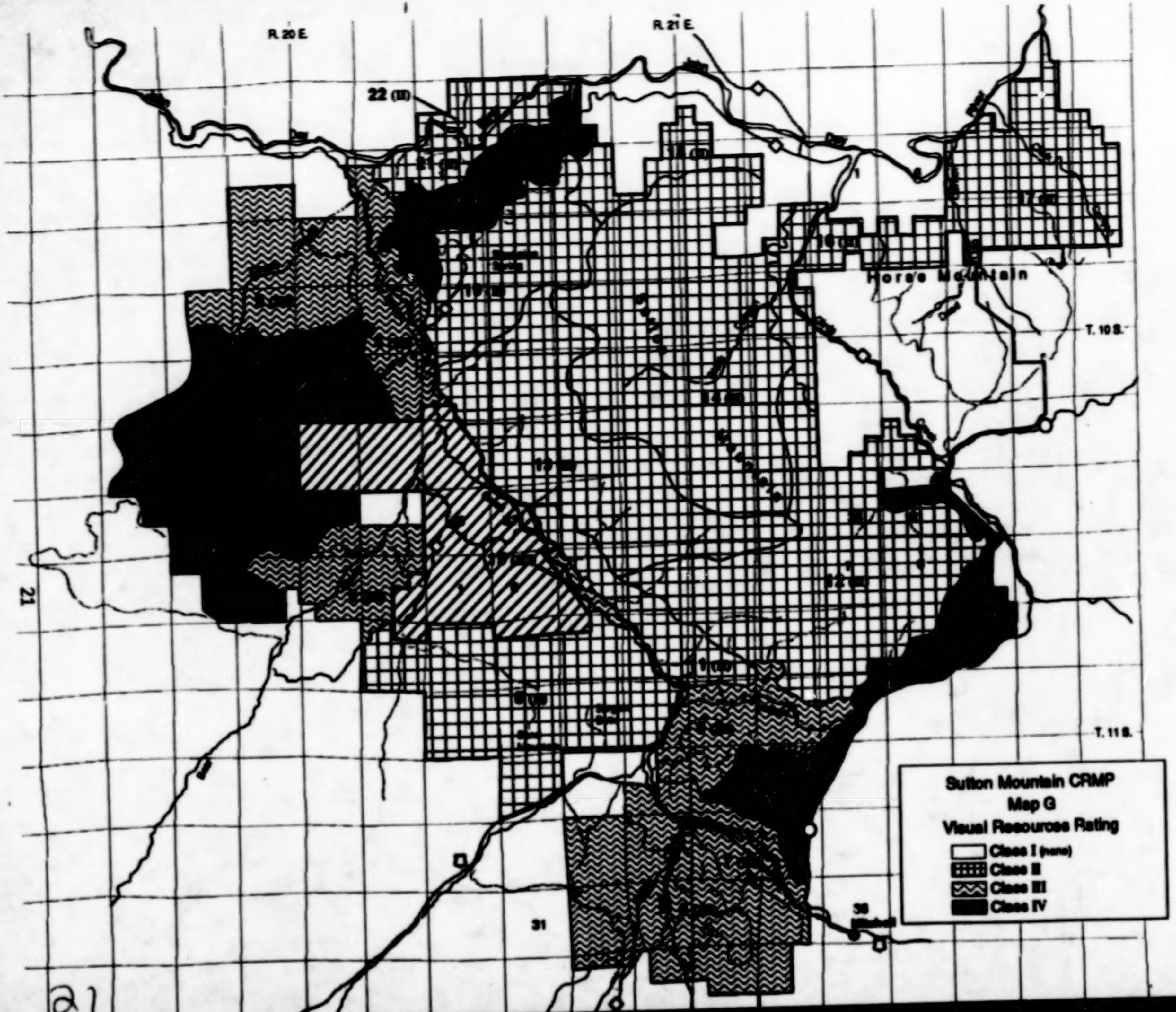

R. 20 E.
R. 21 E.
John Day
Horse Mountain
T. 10 S.
T. 11 S.
1
6
31
36
Mitchell
▦ Lands Containing Wilderness Characteristics - Proposed Wilderness Study Area
░ Lands Not Containing Wilderness Characteristics - Dropped During Initial Inventory
■ Lands Not Containing Wilderness Characteristics - Dropped During Intensive Inventory

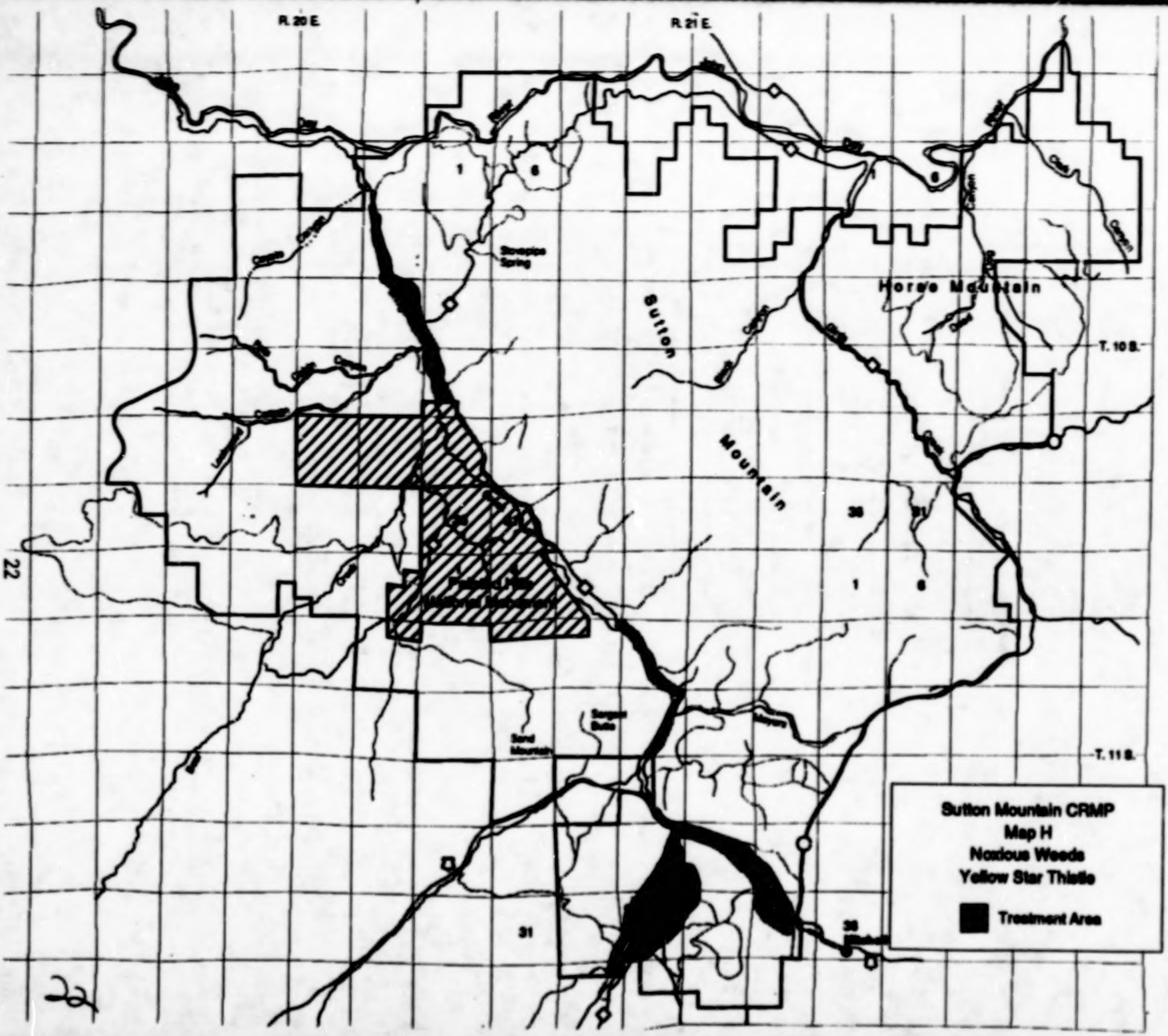
Sutton Mountain CRMP
Map E
Wilderness Inventory



Sutton Mountain CRMP
Map F
Proposed Areas of Critical
Environmental Concern



Sutton Mountain CRMP
Map G
Visual Resources Rating


R. 20 E.
R. 21 E.
John Day
Day
1
6
1
6
Stovepipe Spring
Sutton Mountain
Horse Mountain
T. 10 S.
36
31
1
6
Sargent Butte
Sand Mountain
T. 11 S.
31
36
Mitchell
Sutton Mountain CRMP
Map H
Noxious Weeds
Yellow Star Thistle
Treatment Area

b. Water Rights

The validity of all water rights, held by the BLM, would be maintained. Table 3 shows what water rights which are attached to individual agricultural field.

Table 3
Agricultural Fields with Water Rights

Field Name	Stream Name	Flow (Cu. Ft./Sec.) (CFS)
Connelly	Bridge Creek	0.51
92 Pasture[1/]	Bridge Creek	1.91
Unsworth	Bridge Creek	0.61
Manning	Bridge Creek	1.43
Owens Fields[2/]	Bridge Creek	3.13
Gable Creek	Gable Creek	0.28
TOTALS		7.87
Priest Hole	John Day River	1.2
John Day River	John Day River	0.6
TOTALS		1.8

[1/] Includes the 92 Acre and 18 Acre Fields which are currently under lea and a seven acre part which is fenced separately and not leased.

[2/] This includes Upper and Lower Owens Fields, Highway Field and the Hor Fields.

c. Leased Water Rights

Water rights appurtenant to land which has been taken out of crop production, may be leased for the purpose of maintaining the water as an instream right.

d. Native Hardwoods Supplementation Project

Approximately three acres of the Priest Hole Agricultural Field (near John Day River Mile 139) would be devoted to the propagation of various native hardwood trees. Seedlings would be grown, under irrigated conditions, for the purpose of being transplanted along the John Day River and it's tributaries. Trees which develop beyond a point of being transplanted, would remain in place. For a detailed description of this project refer to EA Number OR-054-5-4.

e. Riparian Buffer Stipulation

A minimum ten foot strip of untilled land would be maintained between all agricultural fields and riparian zones. This would be subject to the appropriate noxious weed control treatments which may include tilling to establish desirable vegetation. Also see Control Methods under Noxious Weeds, Part IV.A.4.

11. Livestock Grazing

a. Animal Unit Months

The amount of grazing, on public lands, is based on an Animal Unit Per Month (AUM). An AUM is defined as the amount of forage necessary to sustain one cow, or its equivalent, for a period of one month.

b. Manning Exclosure

The area is approximately 38 acres and fenced separately from the Sutton Mountain Allotment. The exclosure contains 0.3 miles of Bridge Creek at the southern boundary of the allotment. (See Map J in Alternative A). Livestock grazing would be excluded from the exclosure indefinitely.

c. Lower Owens Pasture

It contains 35 acres in the Circle Bar Allotment and 0.8 miles of Bridge Creek which runs through the middle of the pasture. Approximately 28 acres were plowed and seeded to a perennial grass mix in 1990. Livestock grazing would be authorized on an as-needed basis.

d. Girds Creek Riparian Pasture

The area contains 1,035 acres of public land and 2.2 miles of Girds Creek. Presently the area is not completely enclosed so any livestock using it can move from the pasture to private land along the John Day River near Twickenham. Portions of four grazing allotments are contained in the pasture along with 58 acres of unallotted public land. In addition, unauthorized livestock use occurs because portions of the pasture are unfenced. Also, the Wheeler County Road Department moves gravels and cobbles from the creek channel to along side the road for protection of the roadbed.

Under the CRMP, this pasture would be part of the Girds Creek Allotment. Livestock grazing would be excluded until this portion of Girds Creek is in proper functioning condition. An effort would be made to work with the county road department to protect the road while eliminating the present disruption to the creek channel.

e. Agate Point Pasture

The area contains 547 acres, located on the north side of the John Day River for 1.4 miles, and is part of the Sutton Mountain Allotment. It has areas along the river which may have been historic wetlands. An effort would be made to restore these areas within the next ten years. Livestock grazing would be excluded until the wetland area is in proper functioning condition.

f. Livestock Management Projects

(1) Springs: All springs proposed for development, either new or reconstruction, would be constructed according to the standards described in Appendix E.

(2) Fences: All fences proposed for construction or reconstruction, would follow the standards described in Appendix F.

(3) Cattleguards: All proposed cattleguards would be constructed according to the standards described in Appendix G.

Access to project locations would be on existing roads and ways. Outside of the proposed WSA boundaries, vehicles may be driven cross-country on slopes less then eight percent. On slopes greater then eight percent and within the proposed WSA boundaries, materials would be transported by hand, pack animals, helicopter or any combination of these methods.

g. Allotment Categorization

All grazing allotments in the Prineville District have been placed into one of three Selective Management Categories which are described in Appendix C. The present allotment categories and proposed changes are listed in Table 4.

Table 4
Allotment Categorizations

Allotment	Present Category	Proposed Change
Carroll Rim	I	--
Circle Bar	M	I
Crown Rock	I	--
Dead Dog Canyon	I	--
Gable Creek	I	--
Girds Creek	I	--
Mary Misener	I	--
Packsaddle Mountain	C	M
Sutton Mountain	M	I

12. Monitoring, Evaluation and CRMP Modification

a. Monitoring

(1) Present Studies

The following studies have been established and will continue to be used for monitoring and evaluation purposes. The individual study techniques are described below and organized by the type of resource value they monitor. Additional upland vegetation, soil cover and vegetation utilization studies will be established in future years.

Aquatic Habitat

Study Name	Monitor	Parameters Measured	Reference
Macroinvertebrate Analysis	Condition and trend of instream habitat	Species and biomass	Aquatic Macro. Sampling. BLM. Course Guide 6000-ST-5. Methods for Evaluating Streams, Riparian and Biotic Conditions. 1983. USFS, Gen. Tech. Report INT-138
Physical Stream Survey	Condition and trend of fish habitat	Pool/Riffle ratio, depth, fish habitat, cover and shade	Prineville District. Riparian Inventory Methods Notebook
Water Quality	Characterize water quality and monitor compliance with DEQ standards	Turbidity, O_2, sulfates, phosphates, nitrates, pH, specific conductivity, hardness, stream flow, temperature and alkalinity	Environmental Protection Agency. 1981. Procedures for handling and chemical analysis of sediment and water samples.
Peak Crest	Peak water levels	Document the highest water level during a given time period	Rangeland Monitoring and Evaluation Plan. 1992. BLM, Prineville District.

Upland Vegetation and Soil Cover

Study Name	Monitor	Parameters Measured	Reference
Climate	Correlation of utilization and trend data	Crop year precipitation	Rangeland Monitoring In Oregon and Washington. 1985. BLM. 5-6.
Daubenmire Transect	Vegetation trend of individual species and ecological condition	Species composition, cover and frequency	Trend Studies. 1985. BLM, Technical Reference 4400-4. 18-23.
General Observations	Overall resource health	Observations pertinent to resource conditions	Rangeland Monitoring and Evaluation Plan. 1992. BLM, Prineville District.
General Photo	Vegetation trend	Species composition, vigor, community structure	Rangeland Monitoring and Evaluation Plan. 1992. BLM, Prineville District.
Line Intercept	Trend and ecological condition	Basal and foliar cover	Trend Studies. 1985. BLM, Technical Reference 4400-4. 42-46.
Nested Frequency	Trend and ecological condition	Species composition, frequency of individual species and ground cover	Trend Studies. 1985. BLM, Technical Reference 4400-4. 36-41.
Observed Apparent Trend	Overall rangeland trend	Professional judgement used to rate species composition, vigor, ground cover, plant utilization, seedling establishment and erosion	Rangeland Monitoring In Oregon and Washington. 1985. BLM. 28 and 31.
Special Status Plants	Condition and trend of known populations	Vigor, reproduction and threats. Actual count or estimation of population size.	Rangeland Monitoring and Evaluation Plan. 1992. BLM, Prineville District.

Upland Vegetation and Soil Cover

Study Name	Monitor	Parameters Measured	Reference
Photo Plot	Trend of individual plant species	Species composition, cover, vigor and litter	Trend Studies. 1985. BL Technical Reference 440 4. 6-11.

Vegetation Utilization

Study Name	Monitor	Parameters Measured	Reference
Actual Use	Amount of livestock use to be correlated with other utilization and climate studies	Period of grazing use and number of animals	Actual Use Studies. 198 Technical Reference 440 2.
Key Area	Percent of vegetation removed by plant species per unit area and based on permanent study locations	Utilization amounts based on six different intervals of utilization	None. Modification of: Utilization Studies. 1984. Technical Referen 4400-3.
Key Forage Plant	Percent of vegetation removed by plant species per unit area	Utilization amounts based on six different intervals of utilization	Utilization Studies. 1984. Technical Referen 4400-3.
Mapping	The pattern of utilization levels on a given area using maps or aerial photos	Utilization amounts based on six different intervals of utilization and the size of each interval plotted	Utilization Studies. 1984. Technical Referen 4400-3.

Riparian Habitat

Study Name	Monitor	Parameters Measured	Reference
Channel Cross Section	Changes in channel morphology over time	Surveyed cross sectional area	Parsons, Stephen C. and Shirley Hudson. 1985. Stream channel cross section Surveys and dat analysis. USDI/BLM.
Cover Board	Change in structure and cover	Percent of cover per half meter vertical intervals using eight different Daubenmire cover classes	Myers, Lewis H. 1987. Riparian inventory and monitoring. Montana BLM Riparian Technical Bulletin No. 1.
Riparian Habitat	Trend of riparian plant communities	Plant species composition, structure and animal use	BLM Manual 6602 and Prineville District Riparian Inventory Methodology Notebook.
Riparian Photo	Trend of riparian plant communities	Plant species composition, structure	Prineville District Riparian Inventory Methodology Notebook.

(2) Future Studies

The following studies and inventories are planned for the CRMP area. Implementation will depend on funding and manpower levels.

Name	Initiation Date	Monitor	Parameters Measured	Reference
Ecological Site Inventory	Within five years of CRMP implementation	Ecological condition	Soils classification, ecological site and condition class	National Range Handbook. Handbook 4410-1.
Noxious Weed Inventory	Within three years of CRMP implementation	Extent of noxious weed infestations	Species identification and acres occupied	Modification of: National Range Handbook. Handbook 4410-1.
Airborne Video	Being implemented	Cover by species and riparian vegetation trend	Species identification and area occupied	Airborne Video Methodology, 1994. BLM, Prineville District
Shade Monitoring	1995	Percent of stream shading	Amount of shade as measured by a Solar Pathfinder	Lower John Day Monitoring Program, 1995. Also, Solar Pathfinder instruction booklet.
Steelhead Spawning Survey	Being implemented	Spawning trend	Number of redds per unit length	Coordination with Oregon Dept. of Fish and Wildlife
Water Quality and Temperature	Being implemented	Expand water quality studies to include springs	Turbidity, O_2, sulfates, phosphates, nitrates, ph, specific conductivity, hardness, stream flow, temperature and alkalinity	Environmental Protection Agency. 1981. Procedures for handling and chemical analysis of sediment and water samples.
Water Flow Meter	1996	Flow at each water diversion point	Water flow per unit of time	Oregon Dept. of Water Resources

b. **Evaluation**

An annual meeting would be conducted to evaluate the progress of the CRMP. The meeting would involve the Lower John Day GeoTeam and any interested persons. A complete written evaluation would be completed every five years after the date the CRMP becomes effective.

c. **CRMP Modification**

Modifications to the CRMP would be based on monitoring data, inventories, any special studies and changes with individual ranch operations. Changes would result through coordination with the Lower John Day GeoTeam and the affected interests.

B. Alternative A - Emphasize Commodity Production

1. Access

Motorized vehicles within the Sutton Mountain WSA and Pats Cabin Canyon WSA would be permitted on existing routes all year. (See Map E, Wilderness Study Areas). The remainder of the WSAs would be closed to vehicle entry. No other restrictions would be enacted throughout the planning area. (See Map I, Roads/Public Land Access). All existing BLM roads and ways outside the WSAs would be maintained on a regular basis.

2. Leasable Minerals

The mineral estate, controlled by the governemnt would remain open for exploration, development and granting of related rights-of-ways. Oil, gas and geothermal leasing would continue with the entire federal reserved mineral estate open to exploration, but subject to standard lease requirements and stipulations with special stipulations applied as needed. (See Appendix C, Oil, Gas and Geothermal Leasing Stipulations). In addition, the following restrictions would be applied in certain sensitive areas with high resource values other then minerals.

Visually Sensitive Areas A No Surface Occupancy (NSO) stipulation would apply to visually sensitive areas rated in a Management Class II. If a discovery of mineral resources is made, alternatives for development and their relationship to the public land and other resources would be addressed as stated above.

Steelhead Spawning and Rearing Streams A NSO stipulation would apply to within one quarter mile of Bridge, Bear, Gable & Nelson Creeks. If extraction of the mineral is not considered feasible under these conditions, the area would not be leased for oil & gas exploration & development.

3. Noxious Weeds

Target Weeds All "A" rated weeds would be eliminated and all "B" rated weeds controlled within ten years depending on funding levels and environmental constraints. Refer to Part II.A. (Noxious Weeds) for the 1993 listing of Wheeler County "A" and "B" rated weeds.

Control Methods The type of weed control methods used would Be limited only by the constraints provided by existing policies and laws. It would depend on such things as size of the treatment area, accessibility, terrain, funding and current environmental constraints.

Rehabilitation The treated areas would be seeded with a mixture of 70%, or more, perennial bunchgrasses. The remainder may be composed of forbs and shrubs. The kind of species would depend on the type of site and which ones would be best adapted to the site. The species may be native, nonnative or both. The application rate and method would be determined by an ID Team at the time a specific project proposal is made.

4. Recreation

Back Country Byway The existing county roads, State Highway 207 and Federal Highway 26, which circles Sutton Mountain, would be designated as a Back Country Byway. This action would be handled in a separate management document. The route would be from State Highway 26 down the Bridge Creek County road to the county road going from Bridge Creek to

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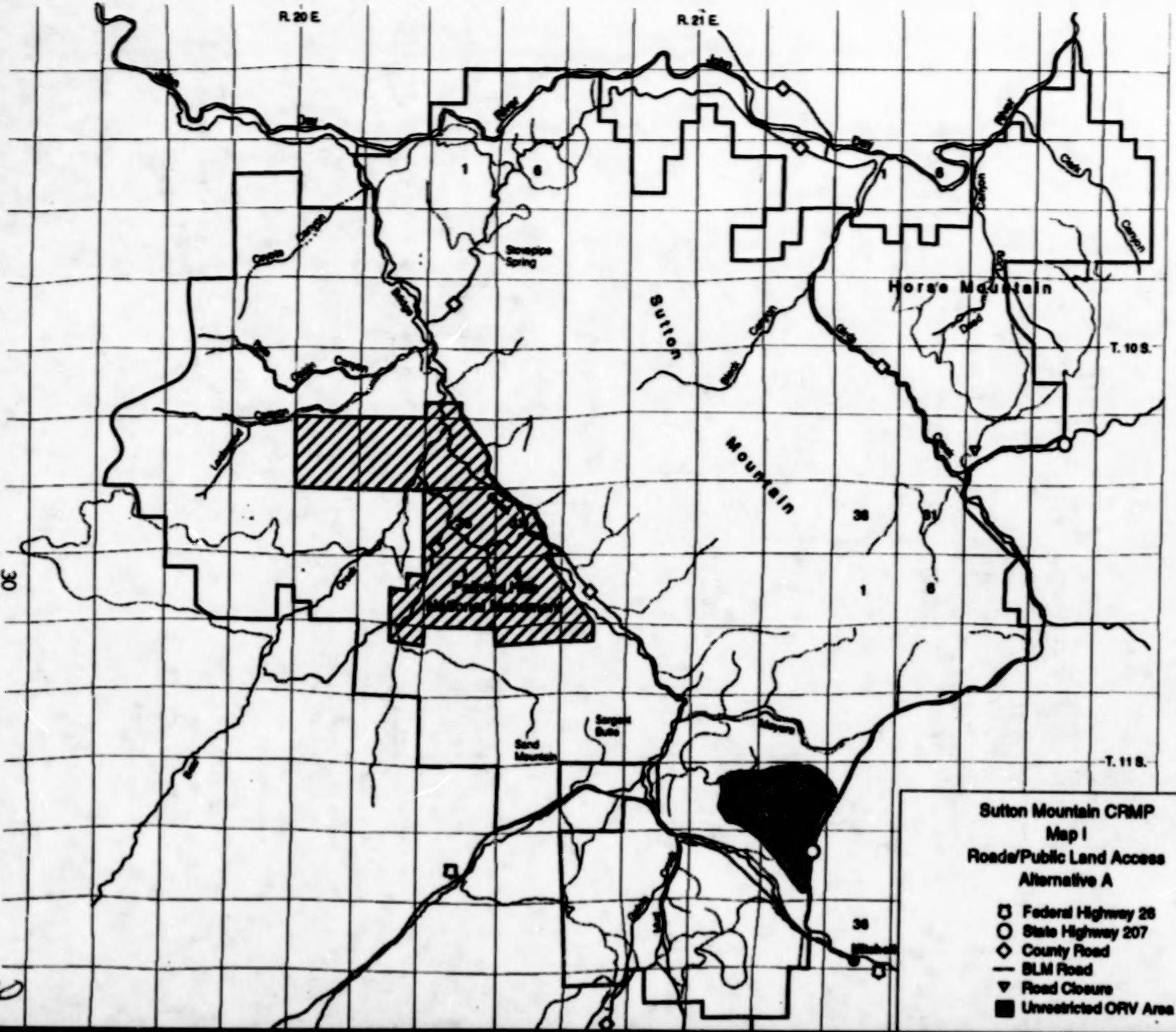

Sutton Mountain CRMP

Map I

Roads/Public Land Access

Alternative A

30

Twickenham, to the Girds Creek County road and to Highway 207, and back to Highway 26.

Off Highway Vehicle (OHV) Use Off road vehicle use would be allowed in the area described below. ORVs would be restricted to those roads designated as open to the public.

The area located in T. 11 S., R. 21 E., Secs. 22, 23 and 26 would be designated as open to ORV use. (See Map I, Roads/Public Land Access; Alternative A).

5. Special Status Species - Plants

Survey for special status plants would continue in the CRMP area with an average of 500 acres completed each year, both as a result of inventory and project clearance work. Annual quantitative monitoring would be established for all populations of special status plants to determine if protection from livestock grazing or public use activities need to be provided. Populations experiencing impacts would be fenced.

The control of Wheeler County A and B listed weeds would occur in special status plant locations as needed, but with necessary mitigation measures to protect the desired species. All methods of weed control would be allowed.

6. Visual Resource Management

The existing human modifications would be brought into compliance with the management class standards where they are located. This would be done at the time each modification is reconstructed.

A cooperative effort would be made with the power company to move the existing power line to the west side of the Bridge Creek County Road. This would be done when major servicing work becomes necessary on the line.

7. Upland Vegetation Manipulations

Forage production would be emphasized while improving areas of the watershed which are in poor condition and have potential for improvement. Every effort would be made to accomplish this over a five year period. The areas presently proposed for seedings, juniper cutting and controlled burning are listed in Table 5.

An Ecological Site Inventory (ESI) would be done on the remaining noninventoried public lands within three years of initiating the CRMP. Future vegetation treatment areas would be identified through the ESI process and analyzed in a separate EA.

Proposed Treatment Areas

Eleven treatment areas have been identified and listed in Table 5. (See Maps K and L, Project Implementation - Alternative A, both Sutton Mountain Allotment Cattle and Sheep/Cattle Options). Vegetation manipulation projects for historic or recently used agricultural fields, are addressed under Water Rights and Agricultural Lands.

Table 5
Alternative A and B
Upland Treatment Areas

Area	Number of Acres	Area	Number of Acres
A	58	G	36
B	650	H	960
C	90	I	48
D	32	J	32
E	130	K	46
F	20		
	TOTAL		2,102 Acres

a. **Treatments for Areas A through K**

(1) A rangeland drill would be used for planting the seed. All seedings would be done during the fall period (October through December).

(2) Drill rows would be contoured with the slope on hills greater the four percent.

(3) The seed mix is shown in Table 6.

(4) Livestock grazing would not be authorized during the first two consecutive growing seasons following the seeding.

(5) The disking and seed drilling phases would be done up to ten feet from Bear and Bridge Creek and the John Day River for areas D, F, G, I, J and K. In area C, these treatments would be no closer then 20 feet from the cutback of Meyers Canyon.

Table 6
Alternatives A and B
Upland Seeding Mix and Application Rate

Common Name	Scientific Name	Cultivar	N/I *	Planting Rate
	Grasses			
Bluebunch Wheatgrass	Agropyron spicatum	Secar	N	4 lbs/ac
Thickspike Wheatgrass	Agropyron dasystachyum	Critana	N	4 lbs/ac
Sheep Fescue	Festuca ovina var. sulcata	Covar	I	2 lbs/ac
Big Bluegrass	Poa ampla	Sherman	N	2 lbs/ac
Basin Wildrye	Elymus cinereus	Magnar	N	3 lbs/ac
	Forbs			
Sulfur Flower	Eriogonum umbellatum	--	N	1 lbs/ac

Common Name	Scientific Name	Cultivar	N/I *	Planting Rate
Small Burnet	Sanguisorba minor	Delar	I	2 lbs/ac
Blue Flax	Linum lewisii	Appar	N	1 lbs/ac
		Shrub		
Shadscale	Atriplex confertifolia	--	N	1 lbs/ac
	Total Pounds Per Acre			20 lbs/ac

* N = Native, I = Introduced

b. Treatments for Area H

(1) Within two weeks prior to cutting, the seed mixture in Table 6 would be broadcast seeded.

(2) All live juniper trees with a Diameter Breast Height (DBH) of less than approximately eight inches, would be cut down. They would be cut low enough that no live branches remain on the stump.

(3) The cutting period would be from September through December. Cutting would be completed within 30 days.

(4) A controlled burn would be done within five years of implementation of the CRMP. A separate EA and burn plan would be done for this phase of the treatment.

8. **Water Rights and Agricultural Lands**

Irrigation and Crop Production The twelve agricultural fields would be leased for the purpose of irrigated crop production. (See Map C, Agricultural Fields With Water Rights).

Any agricultural fields not leased for some form of irrigated crop production would be treated for noxious weeds and planted to a perennial vegetation as described below. The water rights appurtenant to the nonleased fields would be either leased to an entity or trust for the purpose of maintaining the water as an instream right or used to irrigate the planted species.

Agricultural Lands - Treatment Method

a. The year prior to seeding, fields would be treated for noxious weeds.

b. The following year, fields would be plowed or disked to prepare a seedbed.

c. Seed would be planted either during the fall (October through December) or early spring periods (February through April).

d. Planting would be done by using a seed drill. The seed mix and application rates are shown in Table 7.

e. Any livestock grazing would not be authorized during the first two consecutive growing seasons following a seeding.

Table 7
Alternatives A and B
Agricultural Lands - Species Mix and Application Rate

Common Name	Scientific Name	Cultivar	N/I *	Planting Rate
		Grasses		
Crested Wheatgrass	Agropyron cristatum	Fairway	I	3 lbs/ac
Crested Wheatgrass	Agropyron sibiricum	P27	I	3 lbs/ac
Thickspike Wheatgrass	Agropyron dasystachyum	Critana	N	4 lbs/ac
Sheep Fescue	Festuca ovina var. sulcata	Covar	I	2 lbs/ac
Big Bluegrass	Poa ampla	Sherman	N	2 lbs/ac
Basin Wildrye	Elymus cinereus	Magnar	N	3 lbs/ac
		Forbs		
Sainfoin	Onobrychis viciaefolia	Melrose	I	2 lbs/ac
Sulfur Flower	Eriogonum umbellatum	--	N	1 lbs/ac
Small Burnet	Sanguisorba minor	Delar	I	2 lbs/ac
Blue Flax	Linum lewisii	Appar	N	1 lbs/ac
Alfalfa	Medicago sativa	Ranger	I	½ lbs/ac
Alfalfa	Medicago sativa	Nomad	I	½ lbs/ac
		Shrubs		
Shadscale	Atriplex confertifolia	--	N	1 lbs/ac
Basin Big Sagebrush	Artemisia tridentata tridentata	--	N	¼ lbs/ac
		Total Pounds Per Acre		25¼ lbs/ac

* N = Native, I = Introduced

9. Livestock Grazing

a. Allotment Grazing Capacities and Boundaries

The public land livestock grazing capacities and number of acres are summarized in Table 8. (See Appendix H, Table 39, for a description of how AUM levels were determined, by allotment, for Alternative A; also, see Appendix I, for a summary of acres and AUMs by allotment and alternative). Future use levels and adjustments would be based on allotment evaluations.

The proposed allotment and pasture boundary locations are shown on Map J - Sutton Mountain CRMP - Grazing Allotments; Alternative A.

Table 8
Alternative A
Public Land Acres and Allowable AUMs

Allotment/Pasture		Public Land Acres	Public Land AUMs*
Carroll Rim	Hidden Spring	1,909	80
	Rim	663	46
	Totals	2,572	126
Circle Bar	West	4,536	397
	East	14,635	681
	Bridge Creek Riparian	310	0
	Owens Fields	227	22
	Totals	19,708	1,100
Crown Rock	Bear Creek Riparian	269	0
	Crown Rock	2,463	119
	Willow Springs	1,529	73
	Totals	4,261	192
Dead Dog Canyon	Totals	3,906	390
Gable Creek	Totals	5,085	251
Girds Creek	Girds Creek Riparian	1,035	0
	Horse Mountain	572	61
	Totals	1,607	61
Mary Wisener	Totals	503	33
Packsaddle Mountain	Totals	330	20
Sutton Mountain (Cattle Option)	Bridge Creek Riparian	297	0
	River	1,415	57
	Coyote Canyon	8,364	449
	Stovepipe Springs	6,068	273
	Sutton Mountain	8,620	698
	Manning Enclosure	24	0
	Agate Point	567	0
	Totals	25,318	1,477
Sutton Mountain (Sheep/Cattle Option)	Bridge Creek Riparian	297	0
	Coyote Canyon	8,364	449
	Stovepipe Springs	7,463	330
	Sutton - North	4,217	340
	Sutton - South	4,403	358
	Manning Enclosure	24	0
	Agate Point	567	0
	Totals	25,318	1,477
CRMP TOTALS		63,297	3,650

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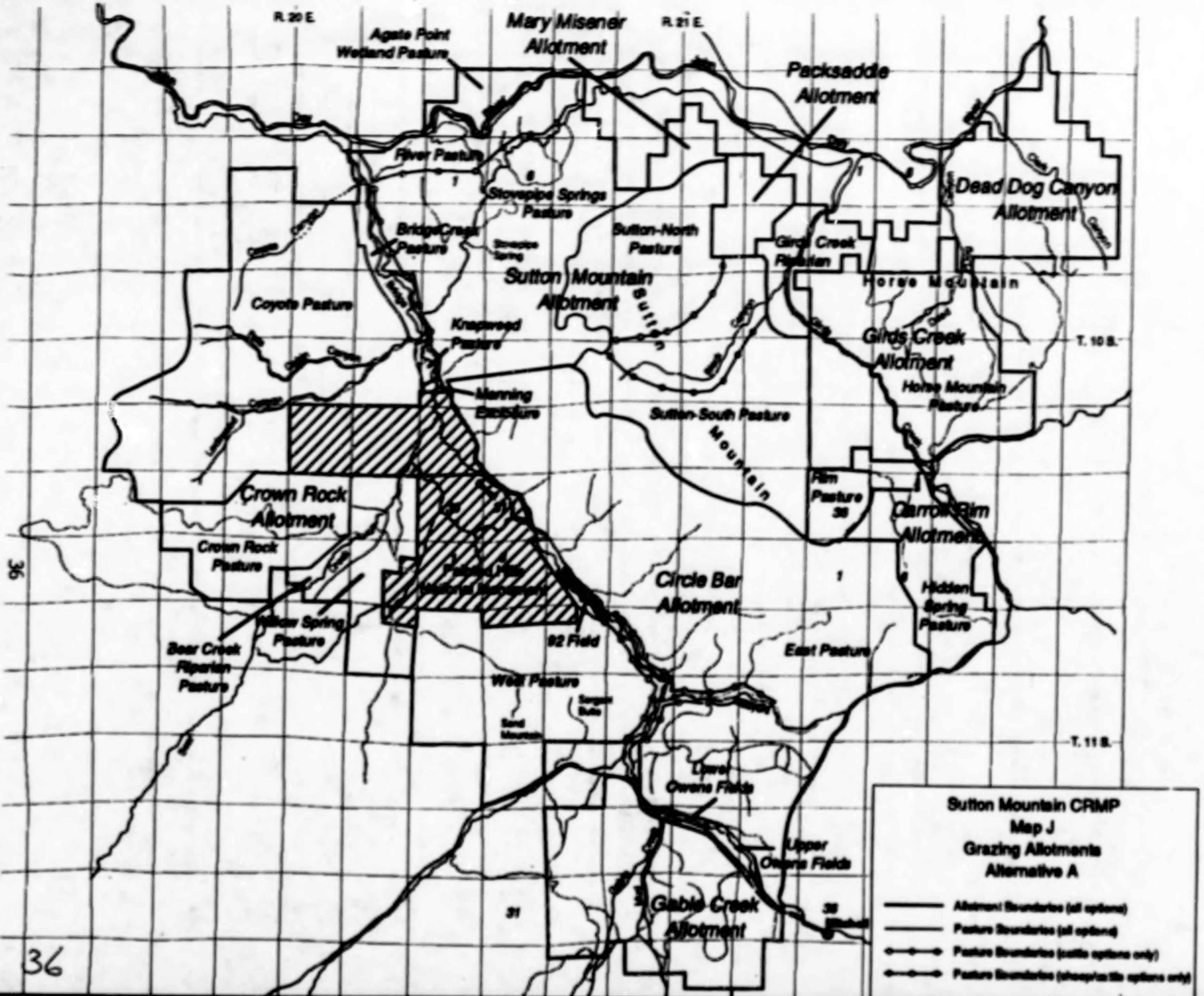
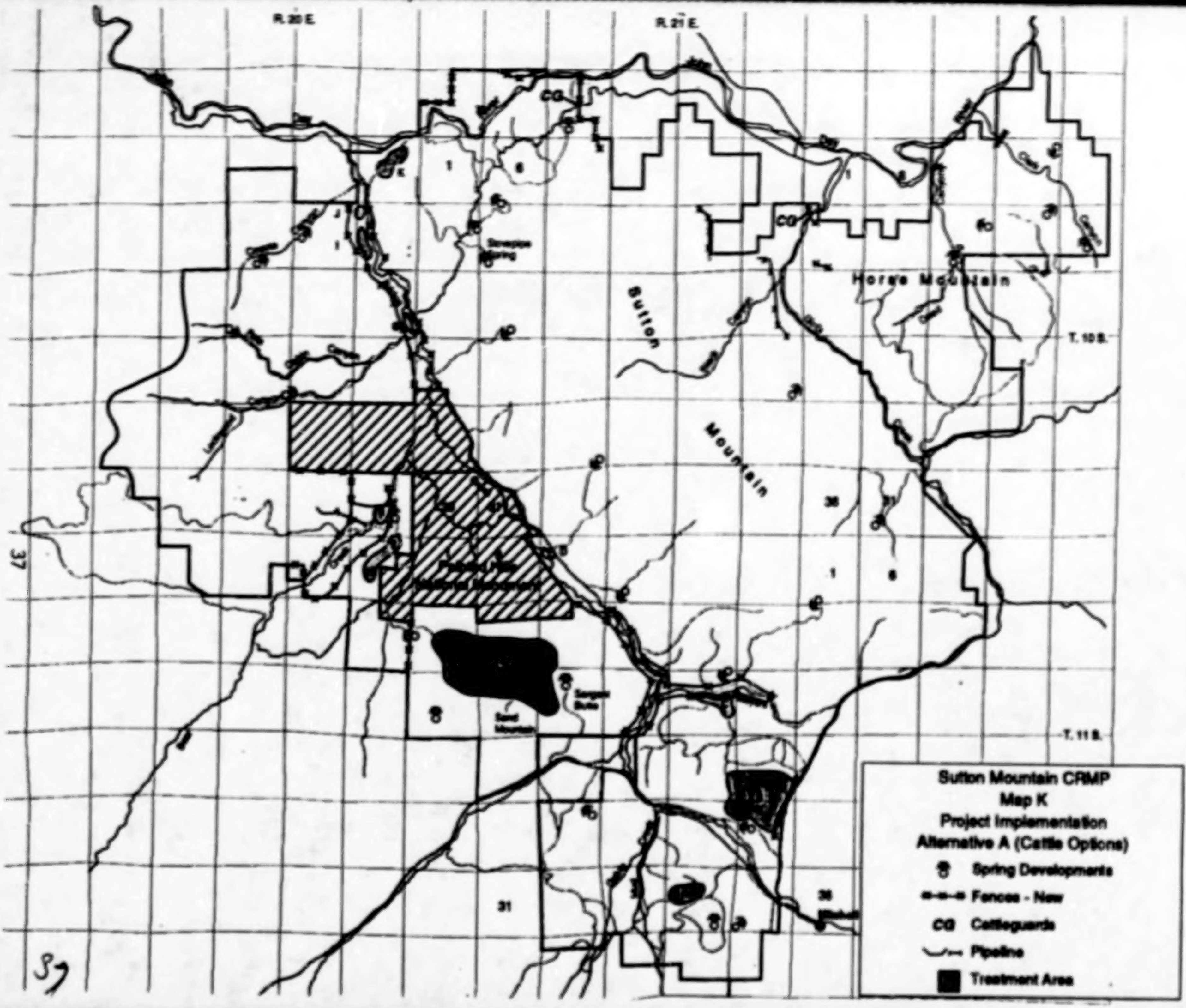
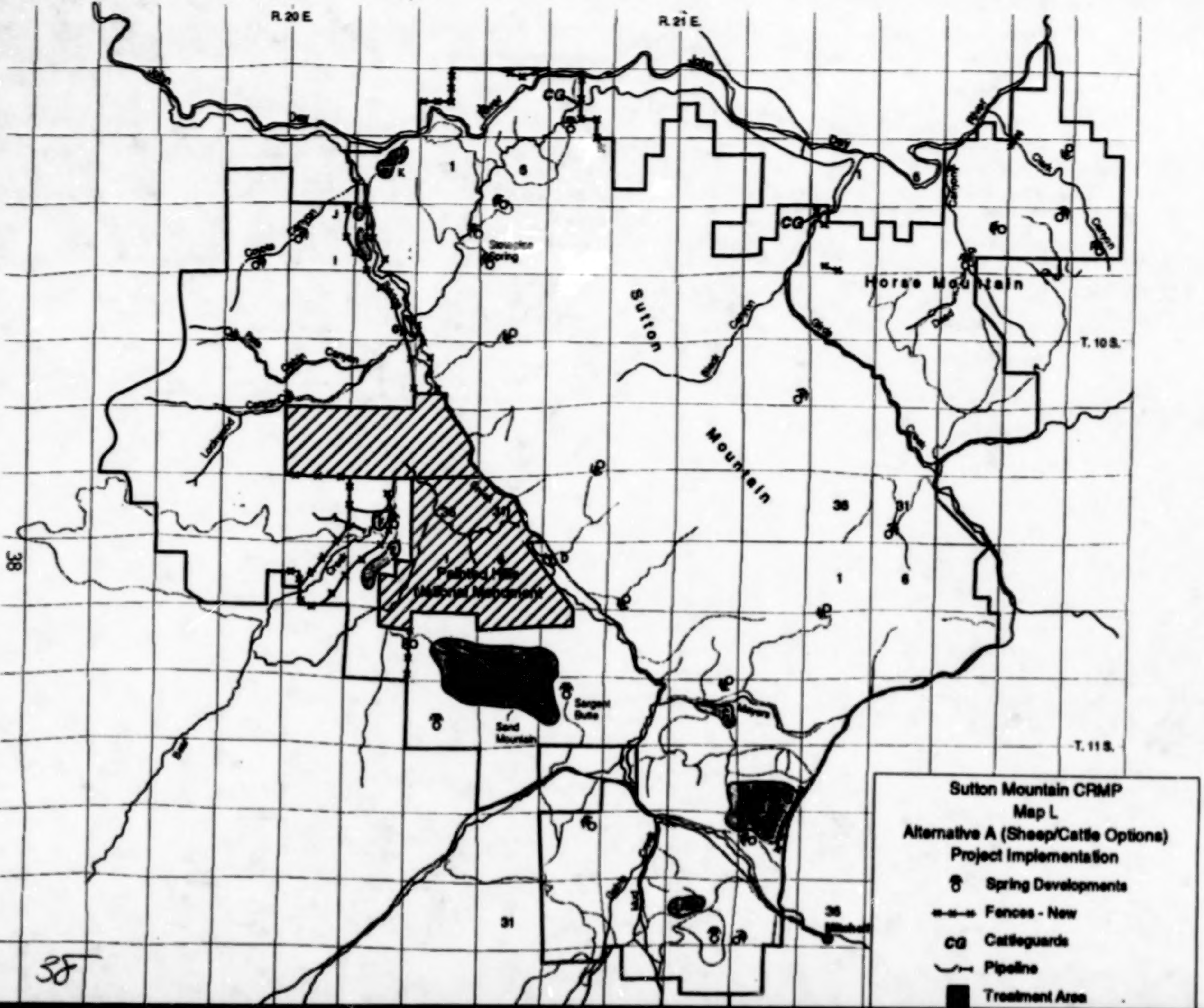


Sutton Mountain CRMP
Map J
Grazing Allotments
Alternative A



Sutton Mountain CRMP
Map K
Project Implementation
Alternative A (Cattle Options)



Sutton Mountain CRMP
Map L
Alternative A (Sheep/Cattle Options)
Project Implementation

b. Grazing Systems

(1) *Carroll Rim Allotment*, 02590

Kind of Livestock: Cattle

Season of Use: March 1 to June 1

Grazing System: Spring rotation as shown in Table 9.

Table 9
Alternative A and B
Carroll Rim Allotment - Grazing Schedule

Pasture	Year One	Year Two
Hidden Spring	4/1 - 4/30	5/1 - 5/30
Rim	5/1 - 5/15	4/15 - 4/30

(2) *Circle Bar Allotment*, 02531

(a) Cattle/Sheep Option

Kind of Livestock: Cattle and Sheep

Season of Use: Cattle, November 1 to April 1
Sheep, March 1 to May 30

Grazing System: Fall/Winter use for cattle as shown in Table 10. Two-thirds of the total AUMs (750) would be authorized for cattle use. The remaining 350 AUMs would be used for sheep use during the spring. The AUMs allocated for each period of use may be used anytime during the respective seasons of use.

Grazing Stipulations: The stipulations listed below, under the Sheep Option, would be adhered to while sheep use is occurring. The Bridge Creek Riparain Pasture would be excluded from livestock grazing.

Table 10
Alternative A
Circle Bar Allotment - Grazing Schedule

Pasture	Year One		Year Two	
	Spring (Sheep Use)	Fall/Winter (Cattle Use)	Spring (Sheep Use)	Fall/Winter (Cattle Use)
East	3/1 - 4/28	11/1 - 2/9	4/3 - 5/30	12/24 - 4/1
West	4/29 - 5/30	2/10 - 4/1	3/1 - 4/2	11/1 - 12/23
Owens Fields		11/1 - 2/9		12/24 - 4/1

(b) Sheep Option

Kind of Livestock: Sheep

Season of Use: March 1 to May 30
October 1 to December 31

Grazing System: There would be two use areas - East and West Pastures. One-third of the total AUMs (350) would be authorized during the spring use period and two-thirds (750 AUMs) in the fall/winter period.

Grazing Stipulations:

(a) Sheep would be herded while using public land.

(b) Locations for sheep camps and sheep bedding areas would be determined prior to any grazing use.

(c) Utilization of the riparian vegetation, by livestock, would be no greater then 20% at any one location. Beyond this level of use, grazing would be terminated for the remainder of the use period. No use would be allowed in the bottom of Meyers Canyon.

(d) Grazing use by sheep, on bitterbrush, would be no greater than 10% of the current years growth in the following locations: T.11S., R.22E., Secs. 5 W½SW¼, 6, 7 and 8 W½NW½; and T.11S., R. 21E., Secs. 11 SE¼, 12, 13, 14, 23 N½ and 24 NW¼NW¼.

(e) No livestock grazing would be allowed along Bridge Creek, west of the 92 Pasture.

(3) Crown Rock Allotment, 02609

Kind of Livestock: Cattle

Season of Use: March 15 to May 15
October 15 to December 15

Grazing System: AUMs allocated to each pasture may be used anytime during the grazing periods shown in Table 11.

Fifty AUMs of fall grazing would be used in the Coyote Canyon Pasture of the Sutton Mountain Allotment each fall.

Grazing Stipulation: Bear Creek would be excluded from livestock grazing pending a return to proper functioning condition.

Table 11
Alternative A
Crown Rock Allotment - Grazing Schedule

Allotment/ Pasture	Year One		Year Two	
	Spring	Fall	Spring	Fall
Crown Rock Allotment/ Willow Springs Pasture	3/15 to 5/15			
Crown Rock Allotment/ Crown Rock Pasture			3/15 to 5/15	
Sutton Mountain Allotment/ Coyote Canyon Pasture		10/15 to 12/15		10/15 to 12/15

(4) ***Dead Dog Canyon*, 02537**

Kind of Livestock: Cattle

Season of Use: March 1 to May 1

Grazing System: One pasture, spring use only.

(5) ***Gable Creek* Allotment, 02516**

(a) Cattle Option

Kind of Livestock: Cattle

Season of Use: November 1 to December 30

Grazing System: One pasture, fall/winter use.

Grazing Stipulations:

1) Livestock would be herded each day. Cattle within a half mile of Bridge, Gable, Mud and Nelson Creeks would be moved to higher areas to establish a pattern of grazing away from riparian zones.

2) Utilization of the riparian vegetation, by livestock, would be no greater then 20% at any one location. Beyond this level of use and grazing would be terminated for the remainder of the use period.

(b) Sheep Option

Kind of Livestock: Sheep

Season of Use: March 15 to May 1

Grazing System: One pasture, spring use only.

Grazing Stipulations:

(1) Sheep would be herded while using public land.

(2) Locations for sheep camps and sheep bedding areas would be determined prior to any grazing use.

(3) Grazing or trailing sheep would be avoided across rocky scabby soils with very little vegetation. These soils are extremely erosive (Very gravelly and very shaly loams - Donning and Venator Soil Series).

(4) Livestock watering would be limited to developed springs. Watering from Gable, Mud and Nelson Creeks would be done only when absolutely necessary.

(5) Utilization of the riparian vegetation, by livestock, would be no greater then 20% at any one location. Beyond this level of use, grazing would be terminated for the remainder of the use period.

(6) *Girds Creek Allotment*, 02561

Kind of Livestock: Cattle

Season of Use: April 1 to June 30

Grazing System: No established system. The Horse Mountain Pasture would be managed as a "scattered tract" area because less than ten percent of the allotment consists of public land.

Grazing Stipulation: No livestock grazing would be authorized in the Girds Creek Riparian Pasture pending the restoration of Girds Creek.

(7) *Mary Misener Allotment*, 02592

Kind of Livestock: Cattle

Season of Use: April 1 to June 1

Grazing System: It would continue to be used as a spring use only allotment. The 43 AUMs from the Chapman Springs area would be made part of the Sutton Mountain Allotment.

(8) *Packsaddle Mountain Allotment*, 02659

Kind of Livestock: Cattle

Season of Use: March 15 to May 1
October 15 to November 30

Grazing System: It would continue to be managed as a custodial allotment.

(9) *Sutton Mountain Allotment*, 02533

(a) Cattle Option

Kind of Livestock: Cattle

Season of Use: March 15 to June 15
October 15 to December 15

Grazing System: The grazing schedule is shown in Table 12. The spring use rotation dates are based on a herd size of 475 cows. Fifty AUMs of fall use would be authorized in the Coyote Canyon Pasture.

To accommodate fall grazing use from the Crown Rock Allotment, 50 AUMs of fall cattle use would be allowed in the Coyote Canyon Pasture each year.

Grazing Stipulations:

1) The Bridge Creek Riparian Pasture would be excluded from livestock grazing pending complete riparian restoration.

2) All livestock grazing would be excluded from the Agate Point Pasture. Grazing would be authorized only on a as-needed basis.

Table 12
Alternative A
Sutton Mountain Allotment - Grazing Schedule
Cattle Option

Pasture	Year One	Year Two	Year Three
River	3/15 to 3/20	3/15 to 3/20	3/15 to 3/20
Coyote Canyon	3/21 to 4/10 10/15 to 12/15	5/26 to 6/15 10/15 to 12/15	5/2 to 5/25 10/15 to 12/15
Stovepipe Springs	4/11 to 5/1	3/21 to 4/10	5/26 to 6/15
Sutton Mountain	5/2 to 6/15	4/11 to 5/25	3/21 to 5/1

(b) Sheep/Cattle Option

Kind of Livestock: Sheep and Cattle

Season of Use: March 15 to June 15
October 1 to December 31

Grazing System: The grazing system is shown in Table 13. No more then three-quarters of the total authorized sheep use would be allowed in any one season of the year.

Sheep There would be four use areas - the west and east sides of Bridge Creek and the top of Sutton Mountain, north and south of Black Canyon. The rim of Black Canyon would be the dividing line between the north and south portions. Black Canyon would not be grazed pending riparian recovery. When recovery is obtained, the canyon would be grazed with the Sutton - North use area. The division line would then become the south rim of Black Canyon.

Cattle Use would occur in the Coyote Canyon and Stovepipe Springs Pastures. Cattle would be allowed access to Bridge Creek while using the Stovepipe Springs Pasture, but not the Coyote Canyon Pasture. Forty-three AUMS of cattle use would be authorized. This would be the result of combining the Chapman Springs portion of the Mary Misener Allotment with the Sutton Mountain Allotment.

To accommodate fall grazing use from the Crown Rock Allotment, 50 AUMs of fall cattle use would be allowed in the Coyote Canyon Pasture each year.

Grazing Stipulations:

1) Sheep grazing would not be authorized below the rim of Black Canyon pending riparian recovery.

2) All livestock grazing would be excluded from the Agate Point Wetland Pasture. Grazing would be authorized only on a as-needed basis. This wetland restoration area is located on the north side of the John Day River from the Priest Hole Agricultural Field.

3) Locations for sheep camps and sheep bedding areas would be determined prior to any grazing use.

4) Sheep use in the riparian zone of Bridge Creek would be limited to occasional watering and crossing the creek. The majority of watering would be done at developed springs. Utilization of the riparian vegetation, by sheep, would be no greater then 20% at any one location.

Table 13
Alternative A
Sutton Mountain Allotment - Grazing Schedule
Sheep/Cattle Option

Use Area	Year One		Year Two	
	Spring	Fall	Spring	Fall
Coyote Canyon	Sheep 3/15 - 4/14	Sheep 12/2 - 12/31 Cattle 10/15 - 12/15	Cattle 4/24 - 5/15	Sheep 10/1 - 10/31 Cattle 10/15 - 12/15
Stovepipe Springs	Cattle 4/24 - 5/15	Sheep 10/1 - 10/31	Sheep 3/15 - 4/14	Sheep 12/2 - 12/31
Sutton Mountain - North	Sheep 4/15 - 5/15	Sheep 11/1 - 12/1	Sheep 5/16 - 6/15	-
Sutton Mountain - South	Sheep 5/16 - 6/15		Sheep 4/15 - 5/15	Sheep 11/1 - 12/1

c. **Projects**

All the proposed projects for Alternative A are summarized in Table 14. The term "Grazing Option" refers to the Cattle and Sheep/Cattle Options for the Sutton Mountain Allotment. For a complete listing and description of all the projects refer to Appendix J. (See Map K for the project locations under Sutton Mountain Allotment - Cattle Option and Map L for Sutton Mountain Allotment - Sheep/Cattle Option).

Table 14
Project Summary - Alternative A

Grazing Option	Project Type	Units
Sutton - Cattle	Fences - New	25.7 Miles
	Fences - Reconstruction	5.9 Miles
	Fences - Relocation	0.6 Miles
	Cattleguards - 16' width	4
	Cattleguards - 22' width	1
	Springs - New	11
	Springs - Reconstruction	21
	Hydroram	1
Sutton - Sheep/Cattle	Fences - New	21.1 Miles
	Fences - Reconstruction	2.2 Miles
	Fences - Relocation	0.6 Miles
	Cattleguards - 16' width	1
	Cattleguards - 22' width	1
	Springs - New	11
	Springs - Reconstruction	21
	Hydroram	1

C. Alternative B - Emphasize Commodity Production While Accommodating Natural Values

1. Access

Motorized vehicles within the planning area would be permitted on existing routes between April 15 and November 15. The planning area would be closed to motorized vehicles the remainder of the year. Exceptions would be county, state, and Federal roads and highways, the Meyers Canyon Road, Old Logging Road, both Priest Hole Roads, and the Mud Creek Road which would be open all year. All motorized use would be restricted to existing routes throughout the planning area. All BLM roads and ways outside of the two WSAs would be maintained on a regular basis. (See Map M, Roads/Public Land Access; Alternative B)

2. Leasable Minerals

This alternative would be the same as Alternative A.

3. Noxious Weeds

This alternative is the same as Alternative A, Noxious Weeds.

4. Recreation

Campground Development All areas would be open for dispersed camping and recreation use. The most heavily used sites would be designated and light maintenance performed.

Roads The same Back Country Byway route, as proposed under Alternative A, would be proposed under this alternative.

In addition, refer to Part IV.C.1. - Access.

Off Road Vehicle (ORV) Use No ORV use area would be designated.

5. Special Status Species - Plants

Same as Alternative A, but with the following exceptions.

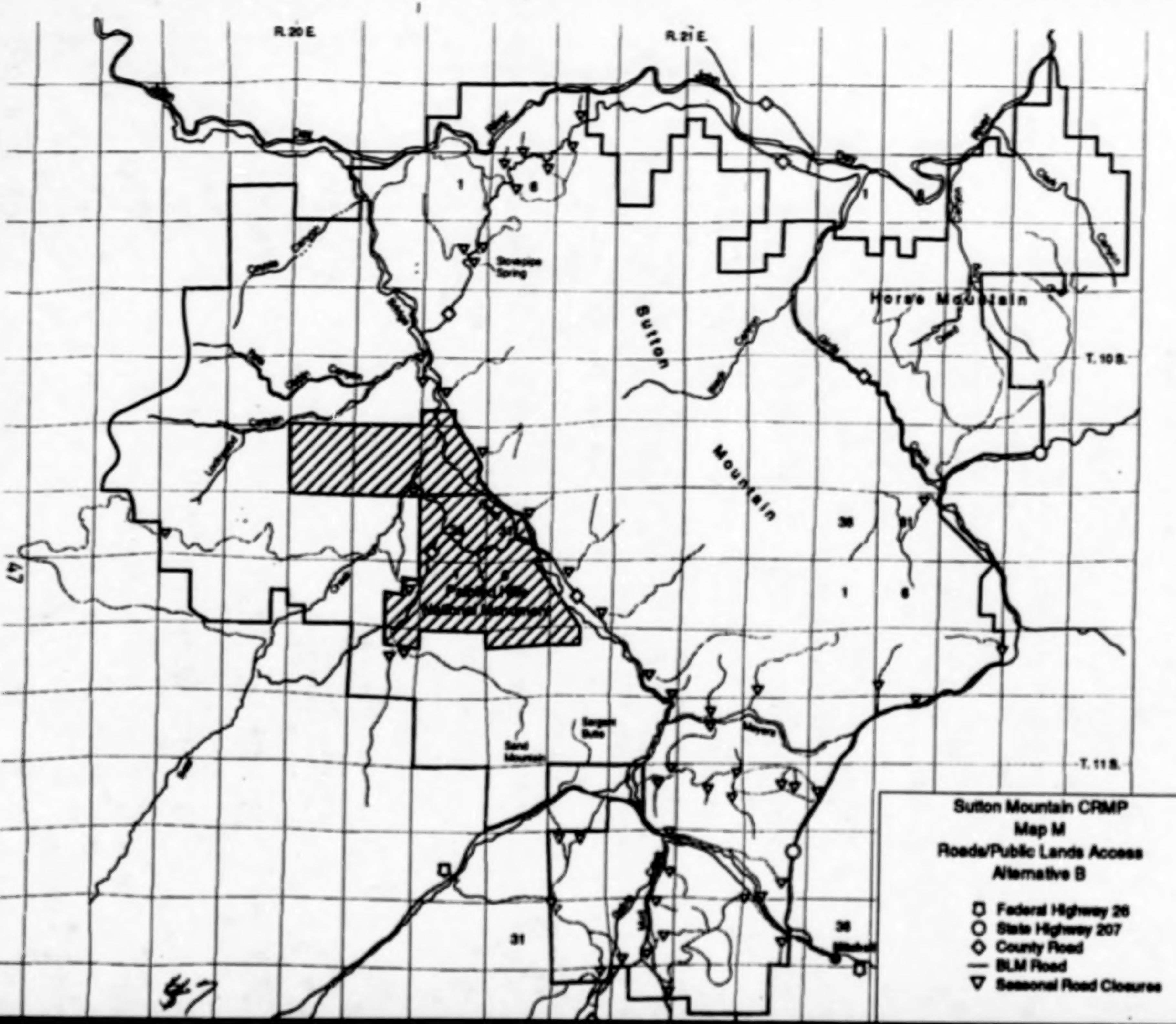
a. Populations of Federal Candidate species would be fenced, as-needed, to exclude heavy recreational, OHV, or livestock use.

b. A preference would be given to non-chemical weed control methods when ever feasible. Monitoring would be used to determine the effects of any weed control methods.

6. Visual Resource Management

The existing human modifications would be inventoried and brought into compliance with the standards for Management Class III, or above, when maintenance is performed or whenever practical.

A cooperative effort would be made with the power company to bury the existing power line along the east side of the Bridge Creek County Road. This would be done from the point along the road where the line can first be seen, when going north, to a point just past the "red" formations (T.11S., R.21E., Sec. 5, SE¼SE¼.



Sutton Mountain CRMP
Map M
Roads/Public Lands Access
Alternative B

- □ Federal Highway 26
- ○ State Highway 207
- ◇ County Road
- — BLM Road
- ▽ Seasonal Road Closures

7. **Upland Vegetation Manipulations**

The same as Alternative A; however, areas in poor condition would be improved over a ten year period. The areas proposed for treatment are listed in Table 5. An Ecological Site Inventory (ESI) would be done on the remaining noninventoried public lands within five years of initiating the CRMP. Future vegetation treatment areas would be identified through the ESI process and analyzed in a separate EA. Any juniper stands identified for treatment which contain old growth characteristics would be excluded from clear cutting, but may be thinned in accordance with EA findings.

Proposed Treatment Areas The same as Alternative A, except Area H (Table 5) would only be cut. This would be according to the stipulations described in Alternative A. (See Maps O and P, Project Implementation - Alternative B, Sutton Mountain Allotment, both Cattle and Sheep/Cattle Options).

8. **Water Rights and Agricultural Lands**

The 92 Acre, Eighteen Acre, Unsworth, Connolly, Priest Hole and John Day River agricultural fields would be available for leasing for the purpose of irrigated crop production. (See Map C, Agricultural Fields with Water Rights).

The remaining agricultural fields would be treated as described in Alternative A. Also, if any of the above six fields are not leased for crop production, they would be treated in the same manner as the nonproduction fields.

9. **Livestock Grazing**

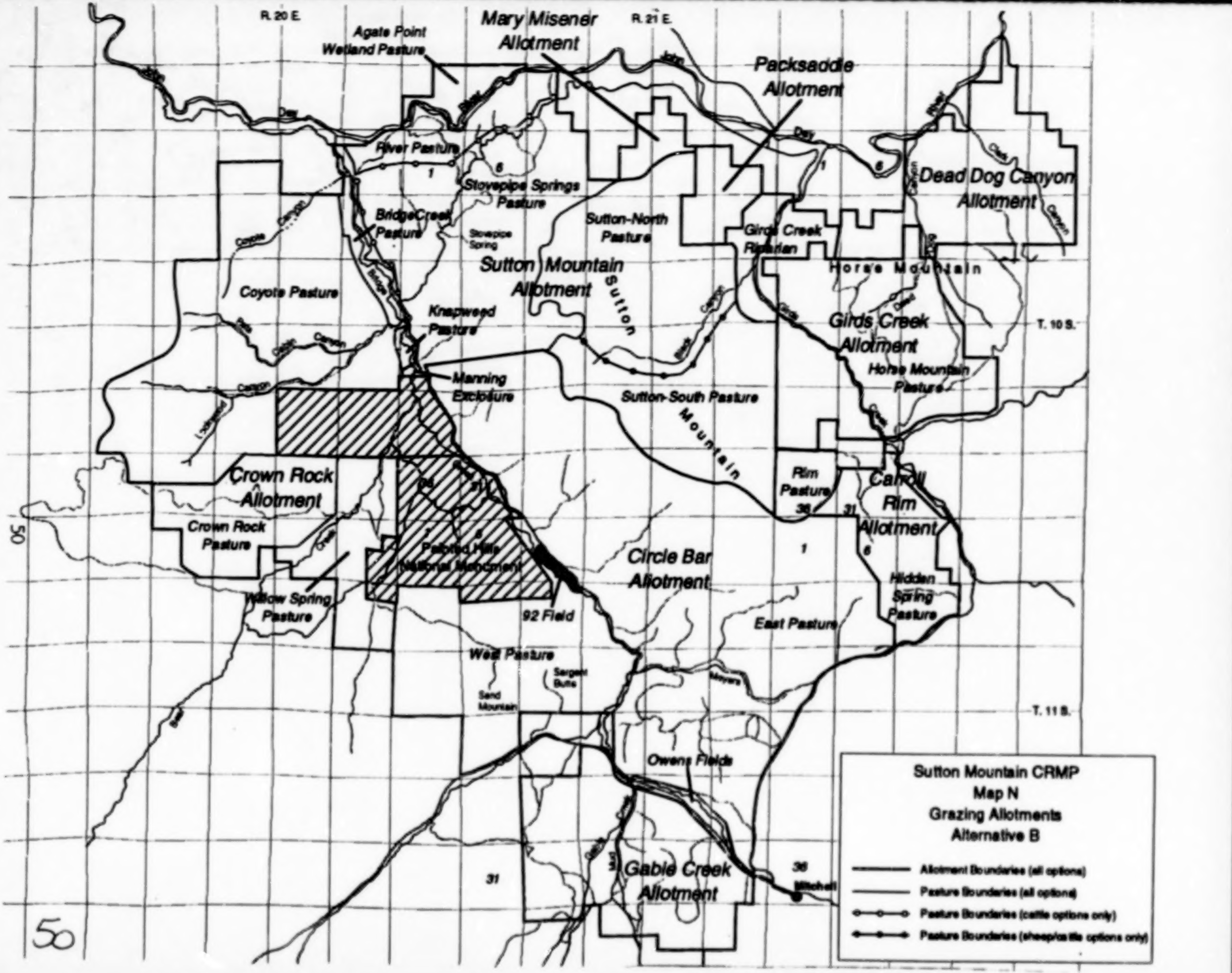
a. **Allotment Grazing Capacities and Boundaries**

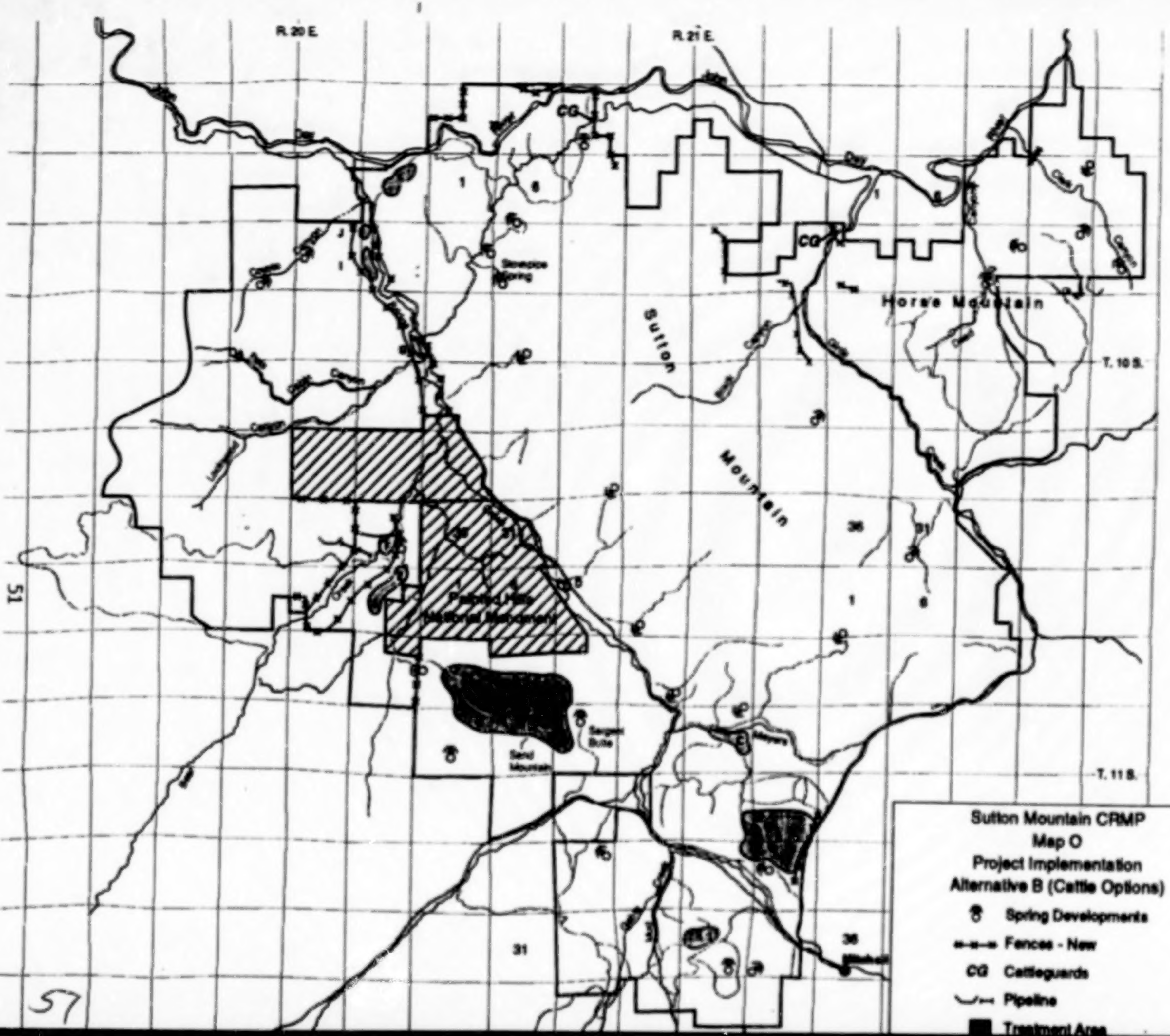
The public land livestock grazing capacities and number of acres are summarized below in Table 15. (See Appendix H, Table 40, for a description of how AUM levels were determined, by allotment, for Alternative B; also, see Appendix H, for a summary of public land acres and AUMs by allotment). Future use levels and adjustments would be based on allotment evaluations.

The proposed allotment and pasture boundary locations are shown on Map N - Sutton Mountain CRMP - Grazing Allotments; Alternative B.

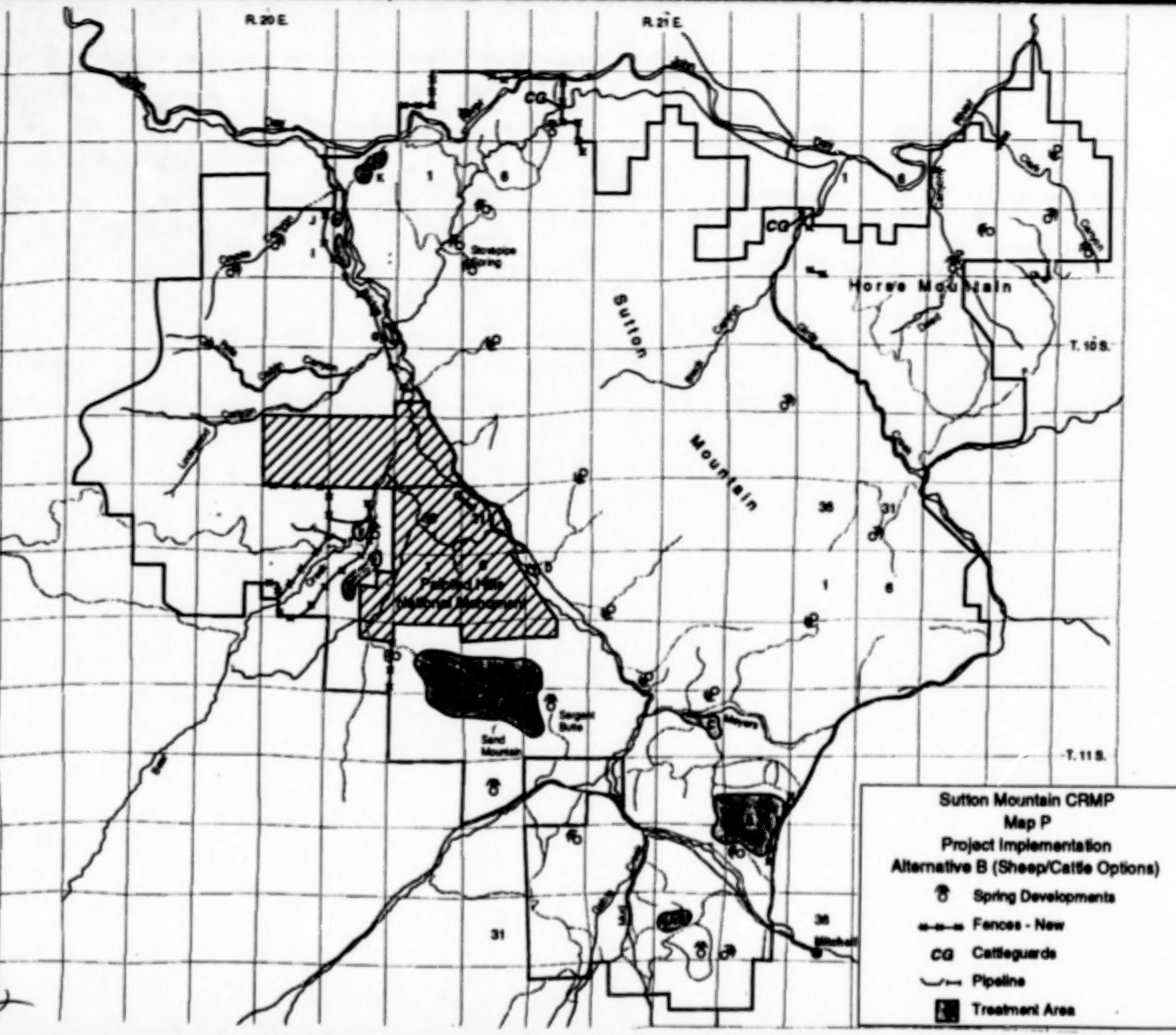
Table 15
Alternative B
Public Land Acres and Allowable AUMs

Allotment/Pasture		Public Land Acres	Public Land AUMs*
Carroll Rim	Hidden Spring	1,909	64
	Rim	663	37
Totals		2,572	101
Circle Bar	West	4,654	304
	East	14,825	568
	Owens Fields	227	18
Totals		19,706	890
Crown Rock	Bear Creek Riparian	249	0
	Crown Rock	2,463	119
	Willow Springs	1,529	73
Totals		4,241	192
Dead Dog Canyon	**Totals**	3,604	200
Gable Creek	**Totals**	5,025	251
Girds Creek	Girds Creek Riparian	1,035	0
	Horse Mountain	572	41
Totals		1,607	41
Mary Misener	**Totals**	880	33
Packsaddle Mountain	**Totals**	330	29
Sutton Mountain (Cattle Option)	Bridge Creek Riparian	297	0
	River	1,415	57
	Coyote Canyon	8,366	449
	Stovepipe Springs	6,048	273
	Sutton Mountain	8,620	698
	Manning Exclosure	24	0
	Agate Point	547	0
Totals		25,315	1,477
Sutton Mountain (Sheep/Cattle Option)	Bridge Creek Riparian	297	0
	Coyote Canyon	8,266	449
	Stovepipe Springs	7,443	330
	Sutton - North	4,217	360
	Sutton - South	4,433	338
	Manning Exclosure	24	0
	Agate Point	547	0
Totals		25,315	1,477
CRMP TOTALS		**63,297**	**3,267**


Sutton Mountain CRMP
Map N
Grazing Allotments
Alternative B



Sutton Mountain CRMP
Map O
Project Implementation
Alternative B (Cattle Options)


R. 20 E.
R. 21 E.
T. 10 S.
T. 11 S.
Sutton Mountain
Horse Mountain
Stovepipe Spring
Painted Hills National Monument
Sargent Butte
Sand Mountain
Mitchell
CG
1
6
36
31
Sutton Mountain CRMP
Map P
Project Implementation
Alternative B (Sheep/Cattle Options)
Spring Developments
Fences - New
CG Cattleguards
Pipeline
Treatment Area

b. **Grazing Systems**

(1) ***Carroll Rim Allotment*, 02590**

The same as Alternative A.

(2) ***Circle Bar Allotment*, 02531**

(a) Cattle/Sheep Option

Kind of Livestock: Cattle and Sheep

Season of Use: Cattle, November 1 to April 1
Sheep, March 1 to May 30

Grazing System: Fall/Winter cattle use and spring sheep use. Two-thirds (620 AUMs) of the total AUMs would be authorized for cattle use. The remaining 310 AUMs would be used for sheep use in the spring. The AUMs allocated for each period of use may be used anytime during the respective seasons of use.

Grazing Stipulations - Cattle:

1) Livestock would be herded each day. Cattle within approximately one half mile of Bridge Creek or Meyers Canyon would be moved to higher areas to establish a pattern of grazing away from riparian zones.

2) Utilization of the riparian vegetation, by livestock, would be no greater then 20% at any one location. Beyond this level of use and grazing would be terminated for the remainder of the use period.

Grazing Stipulations - Sheep: The stipulations listed below, under the Sheep Option, would be adhered to while sheep use is occurring.

(b) Sheep Option

Kind of Livestock: Sheep

Season of Use: April 1 to May 30
October 15 to December 31

Grazing System: There would be two use areas - East and West of Bridge Creek. One-third (350 AUMs) of the total AUMs would be authorized during the spring use period and two-thirds (750 AUMs) in the fall/winter period.

Grazing Stipulations:

(a) Sheep would be herded while using public land.

(b) Locations for sheep camps and sheep bedding areas would be determined prior to any grazing use.

(c) Utilization of the riparian vegetation, by livestock, would be no greater then 20% at any one location. Beyond this level of use and grazing would be terminated for the remainder of the use period. No use would be allowed in the bottom of Meyers Canyon.

(d) Grazing use by sheep, on bitterbrush, would be no greater than 10% of the current years growth in the following locations: T.11S., R.22E., Secs. 5 W½SW¼, 6, 7 and 8 W½W½; and T.11S., R. 21E., Secs. 11 SE¼, 12, 13, 14, 23 N½ and 24 NW¼NW¼.

(e) No livestock grazing would be allowed along Bridge Creek, west of the 92 Pasture.

(3) ***Crown Rock Allotment*, 02609**

The same as Alternative A.

(4) ***Dead Dog Canyon*, 02537**

Kind of Livestock: Cattle

Season of Use: March 15 to May 1

Grazing System: One pasture, spring use only.

(5) ***Gable Creek Allotment*, 02516**

(a) Cattle Option

Kind of Livestock: Cattle

Season of Use: November 1 to December 30

Grazing System: One pasture, fall/winter use.

Grazing Stipulations:

1) Livestock would be herded each day. Cattle within approximately one half mile of Bridge, Gable, Mud and Nelson Creeks would be moved to higher areas to establish a pattern of grazing away from riparian zones.

2) Utilization of the riparian vegetation, by livestock, would be no greater then 20% at any one location. Beyond this level of use, grazing would be terminated for the remainder of the use period.

(b) Sheep Option

Kind of Livestock: Sheep

Season of Use: March 15 to May 1

Grazing System: One pasture, spring use only.

Grazing Stipulations:

1) Sheep would be herded while using public land.

2) Locations for sheep camps and sheep bedding areas would be determined prior to any grazing use.

3) Grazing or trailing sheep would be avoided across rocky scabby soils with very little vegetation. These soils are extremely erosive (Very gravelly and very shaly loams - Donning and Venator Soil Series).

4) Livestock watering would be limited to developed springs. Watering from Gable, Mud and Nelson Creeks would be done only when absolutely necessary.

5) Utilization of the riparian vegetation, by livestock, would be no greater then 20% at any one location. Beyond this level of use, grazing would be terminated for the remainder of the use period.

(6) *Girds Creek Allotment, 02561*

The same as Alternative A.

(7) *Mary Misener Allotment, 02592*

Kind of Livestock: Cattle

Season of Use: April 1 to June 1

Grazing System: One pasture, spring use only.

(8) *Packsaddle Mountain Allotment, 02659*

The same as Alternative A.

(9) *Sutton Mountain Allotment, 02533*

(a) Cattle Option

Kind of Livestock: Cattle

Season of Use: March 15 to May 30

Grazing System: The grazing system is shown in Table 16. The dates are based on a herd size of 475 cows.

To accommodate fall grazing use from the Crown Rock Allotment, 50 AUMs of fall cattle use would be allowed in the Coyote Canyon Pasture each year.

Grazing Stipulations:

1) Bridge Creek would be excluded from livestock grazing pending moderate riparian recovery.

2) All livestock grazing would be excluded from the Agate Point Wetland Pasture. Grazing would be authorized only on a as-needed basis. The pasture is located on the north side of the John Day River from the Priest Hole Agricultural Field.

Table 16
Alternative B
Sutton Mountain - Grazing Schedule
Cattle Option

Pasture	Year One	Year Two	Year Three
River	3/15 to 3/20	3/15 to 3/20	3/15 to 3/20
Coyote Canyon	3/21 to 4/10 10/15 to 12/15	5/10 to 5/30 10/15 to 12/15	3/21 to 4/10 10/15 to 12/15
Stovepipe Springs	4/11 to 5/1	3/21 to 4/10	5/10 to 5/30
Sutton Mountain	5/2 to 5/30	4/11 to 5/9	4/11 to 5/9

(b) Sheep/Cattle Option

Kind of Livestock Sheep/Cattle

Season of Use March 1 to May 15
October 15 to December 31

Grazing System The system would be a modified rest-rotation type which accommodates both sheep and cattle use as shown in Table 17. No more then three-quarters of the total use would occur in any one season.

Sheep The allotment would be divided into four use areas - the west and east sides of Bridge Creek; the top of Sutton Mountain, north and south of Black Canyon. The rim area of Black Canyon would be the dividing line between the north and south portions. Black Canyon would not be grazed pending riparian recovery. When recovery is obtained, the canyon would be grazed with the Sutton-North. The division line would become the south rim of Black Canyon.

Cattle Use would be authorized in the two Bridge Creek use areas - West and East. A total of 43 AUMS would be authorized for cattle use. This is a result of combining the Chapman Springs area of the Mary Misener Allotment (02592) with the Sutton Mountain Allotment. (See Part IV.B.5.b. for additional information on the AUM transfer).

Grazing Stipulations:

1) Sheep grazing would not be authorized below the rim of Black Canyon pending riparian recovery.

2) All livestock grazing would be excluded from the Agate Point Wetland Pasture. Grazing would be authorized only on a as-needed basis. This pasture is located on the north side of the John Day River from the Priest Hole Agricultural Field.

3) Sheep would be herded while using public land.

4) Locations for sheep camps and sheep bedding areas would be determined prior to any grazing use.

5) Sheep use in the riparian zone of Bridge Creek would be limited to occasional watering and crossing the creek. The majority of watering would be done at developed springs. Utilization of the riparian vegetation, by sheep, would be no greater then 20% at any one location.

Table 17
Alternative B
Sutton Mountain Allotment - Grazing Schedule
Sheep/Cattle Option

Use Area	Year One		Year Two	
	Spring	Fall	Spring	Fall
Coyote Canyon	Sheep 3/1 - 3/26	Sheep 12/6 - 12/31 Cattle 10/15 - 12/15	Cattle 4/24 - 5/15	Sheep 10/15 - 11/9 Cattle 10/15 - 12/15
Stovepipe Springs	Cattle 4/24 - 5/15	Sheep 10/15 - 11/9	Sheep 3/1 - 3/26	Sheep 12/6 - 12/31
Sutton Mountain - North	Sheep 3/27 - 4/21	Sheep 11/10 - 12/5	Sheep 4/22 - 5/15	
Sutton Mountain - South	Sheep 4/22 - 5/15		Sheep 3/27 - 4/21	Sheep 11/10 - 12/5

c. Projects

All the proposed projects for Alternative B are summarized in Table 18. The term "Grazing Option" refers to the Cattle and Sheep/Cattle Options for the Sutton Mountain Allotment. For a complete listing and description of all the projects refer to Appendix J. (See Map O for the project locations under Sutton Mountain Allotment - Cattle Option and Map P for Sutton Mountain Allotment - Sheep/Cattle Option).

Table 18
Project Summary - Alternative B

Grazing Option	Project Type	Units
Sutton - Cattle	Fences - New	18.6 Miles
	Fences - Reconstruction	5.9 Miles
	Fences - Relocation	0.6 Miles
	Cattleguards - 16' width	4
	Cattleguards - 22' width	1
	Springs - New	11
	Springs - Reconstruction	21
	Hydroram	1
Sutton - Sheep/Cattle	Fences - New	14.0 Miles
	Fences - Reconstruction	2.2 Miles
	Fences - Relocation	0.6 Miles
	Cattleguards - 16' width	1
	Cattleguards - 22' width	1
	Springs - New	11
	Springs - Reconstruction	21
	Hydroram	1

D. Alternative C - Existing Management

1. Access

Current road closures (under emergency road closure order) would be made permanent as shown on Map Q, Roads/Public Lands Access. Motorized vehicles would be permitted on all other roads. All BLM roads open to the public would be maintained on an as-needed basis.

2. Leasable Minerals

The direction given in the Two Rivers RMP, dated 1986, would be followed.

3. Noxious Weeds

Target Weeds The focus would be to control Wheeler County "A" and "B" rated weeds. The rate and number of species targeted would depend on funding and which species are causing the greatest problem. Presently, the species being treated are yellow star thistle and diffuse and Russian knapweed.

Control Methods Chemicals applied by spray methods would be the preferred means of control, although, all other methods would be considered.

Rehabilitation Treated areas would be allowed to reseed naturally.

Existing Treatment Areas Treatment areas are located in Owens Fields, Horse Fields and along the Bridge Creek County Road right-of-way. Existing areas of yellow starthistle infestations are shown on Map H, Noxious Weeds/Yellow Starthistle.

4. Recreation

Camping Dispersed and unrestricted camping would continue.

Roads Refer to Part IV.C.1. - Access.

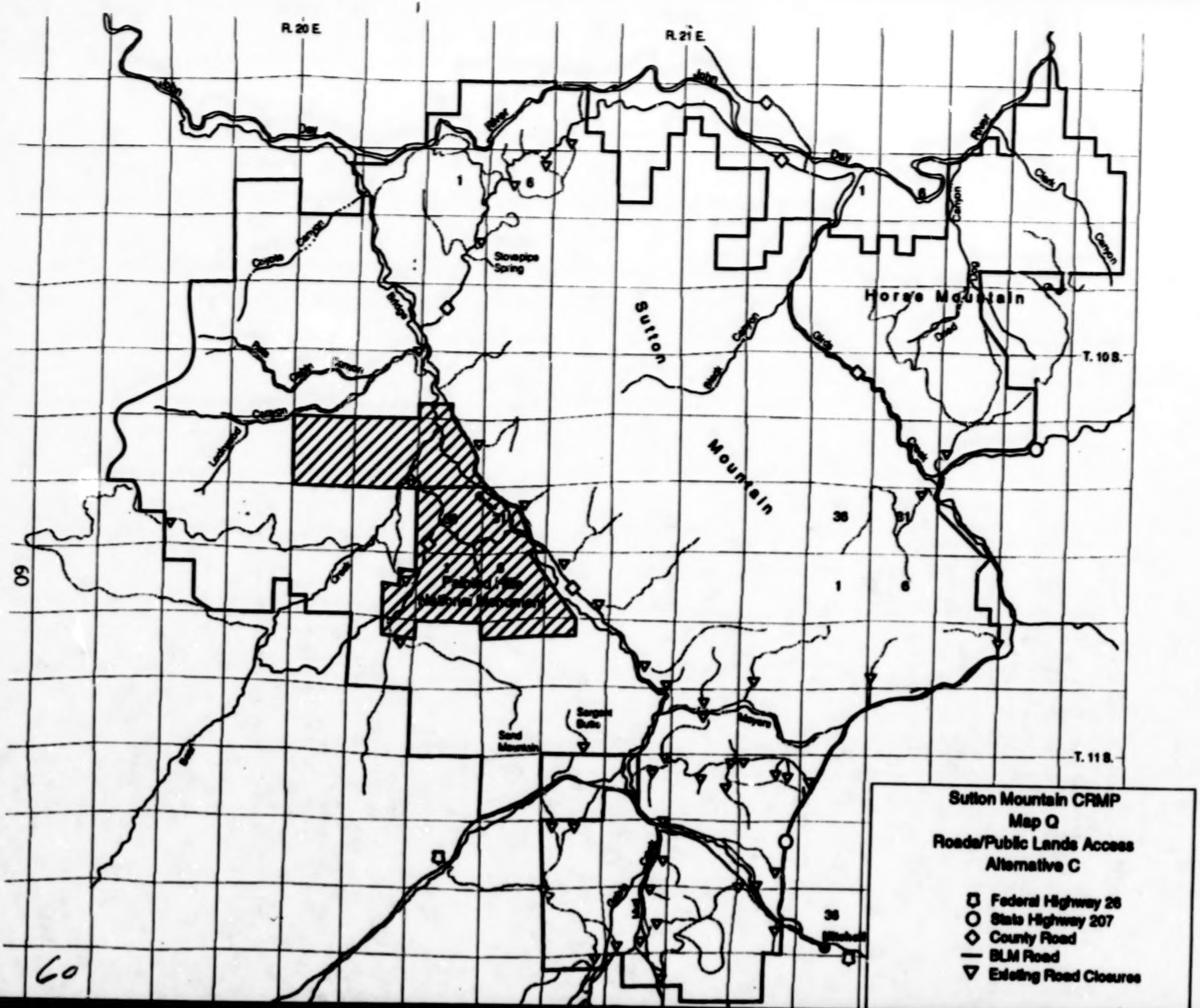
Off Road Vehicle (ORV) Use No ORV use area would be designated.

5. Special Status Species - Plants

Survey for special status plants would continue in the CRMP area with an average of 500 acres completed each year, both as a result of inventory and project clearance work. Areas proposed for weed control would continue to be inventoried prior to control efforts and would be excluded from chemical control should special status plants be found. Known populations of special status plants would be qualitatively monitored once every two years to determine general population trends and threats. Populations found to be threatened by livestock grazing or other management practices or use would be protected through fencing as needed.

6. Visual Resource Management

The management direction listed under Part IV.A.11., Management Common to All Alternatives, would apply. No special actions would be taken concerning existing human modifications.



Sutton Mountain CRMP
Map Q
Roads/Public Lands Access
Alternative C

The existing power line, along the east side of the Bridge Creek County Road, would remain unchanged.

7. Upland Vegetation Manipulations

No projects in progress.

8. Water Rights and Agricultural Lands

The 92 Acre, Eighteen Acre, Unsworth, Priest Hole and John Day River agricultural fields would continue to be leased for irrigation and cropping. (See Map C, Agriculture Fields).

The water rights appurtenant to the unleased fields would be leased to an entity or trusts for the purpose of maintaining the water as an instream right. If the rights are not leased, the water would be used to irrigate existing species.

9. Livestock Grazing

a. Allotment Grazing Capacities and Boundaries

The public land livestock grazing capacities and number of acres are summarized below in Table 19. (See Appendix H, Table 41, for a description of how AUM levels were determined, by allotment, for this Alternative C; also, see Appendix I for a summary of public land acres and AUMs by allotment and alternative). Future use levels and adjustments would be based on allotment evaluations. The existing allotment and pasture boundary locations are shown on Map B.

Table 19
Alternative C
Public Land Acres and Allowable AUMs

Allotment/Pasture		Public Land Acres	Public Land AUMs*
Carroll Rim	Hidden Spring	1,909	64
	Rim	663	37
Totals		2,572	101
Circle Bar	West	4,656	355
	East	14,825	575
	Owens Fields	227	22
Totals		19,708	952
Crown Rock	Crown Rock	2,551	60
	Willow Springs	1,690	50
Totals		4,241	110
Dead Dog Canyon	Totals	4,296	380
Gable Creek	Totals	5,025	210
Girds Creek	Girds Creek Riparian	120	0
	Horse Mountain	572	61
Totals		692	61
Mary Misener	Misener	593	33
	Chapman Spring	675	43
Totals		1,268	76
Packsaddle Mountain	Totals	330	20
Sutton Mountain	Coyote Canyon	8,551	306
	Stovepipe Springs	7,573	304
	Sutton Mountain	8,210	642
	Henning Enclosure	24	0
	Agate Point	547	0
Totals		24,905	1,252
CROP TOTALS		63,297	3,166

c. Grazing Systems

(1) *Carroll Rim Allotment, 02590*

Kind of Livestock: Cattle

Season of Use: March 1 to June 1

Grazing System: Spring rotation with complete rest during the third year as shown in Table 20.

Table 20
Alternative C
Carroll Rim Allotment - Grazing Schedule

Pasture	Year One	Year Two	Year Three
Hidden Spring	4/1 - 4/30	5/1 - 5/30	REST
Rim	5/1 - 5/15	4/15 - 4/30	REST

(2) *Circle Bar Allotment, 02531*

Prior to 1989, the allotment was grazed by cattle between June 1 and September 30. As part of the Sutton Mountain Land Exchange Agreement any existing leases involving private land in the allotment were honored. One lease agreement qualified under the pre-exchange agreement. It involved sheep grazing, so as a result, this kind of livestock was authorized until the expiration date of the lease in 1993. What is described below is what was allowed up to the fall of 1993.

If future livestock grazing is authorized under this alternative, it would have to be cattle in order to be in compliance with the Two Rivers Rangeland Program Summary, dated 1986. That has been the historic use for several years prior to 1989.

Kind of Livestock: Sheep

Season of Use: March 1 to May 30
October 1 to February 28

Grazing System: The allotment is presently divided into two use areas - Bridge Creek, West and East.

Grazing Stipulations:

(a) Sheep were herded while using public land.

(b) No livestock grazing was allowed in the bottom of Meyers Canyon.

(c) Bitterbrush areas in the following locations were not open to grazing: T.11S., R.22E., Secs. 5 W½SW¼, 6, 7 and 8 W½W½; and T.11S., R. 21E., Secs. 11 SE¼, 12, 13, 14, 23 N½ and 24 NW¼NW¼.

(d) No livestock grazing was allowed along Bridge Creek, west of the 92 Pasture.

(e) Livestock use in the riparian zone along Bridge Creek was limited to watering from Bridge Creek and crossing.

(3) *Crown Rock Allotment, 02609*

Kind of Livestock: Cattle

Season of Use: April 1 to May 15
October 1 to December 30

Grazing System: The present grazing system is shown in Table 21. In the fall the cattle have used a partially fenced portion of the Sutton Mountain Allotment in the area of Pats Cabin and Lockwood Canyons. There are two problems with the continence of this system. First, the lease the operator in the Crown Rock Allotment had in Sutton Mountain, expired on December 31, 1992. Second, the area in Sutton Mountain is only partially fenced so cattle are able to access Bridge Creek. If this alternative is selected, a determination would have to be made to either continue using the Sutton Mountain Allotment or start authorizing fall use in this allotment.

Table 21
Alternative C
Crown Rock Allotment - Grazing Schedule

Pasture	Spring	Fall
Willow Springs	4/1 to 4/15	
Crown Rock		4/16 to 5/15
Sutton Mountain Allot. Pats Cabin Pasture		10/1 to 12/30

(4) *Dead Dog Canyon*, 02539

Kind of Livestock: Cattle

Season of Use: March 15 to May 1

Grazing System: One pasture, spring use only.

(5) *Gable Creek Allotment*, 02516

Kind of Livestock: Sheep

Season of Use: March 15 to May 1

Grazing System: One pasture, spring use only.

Grazing Stipulations:

(a) Sheep would be herded while using public land.

(b) Grazing or trailing sheep would be avoided across rocky scabby soils with very little vegetation. These soils are extremely erosive (Very gravelly and very shaly loams - Donning and Venator Soil Series).

(c) Locations for sheep camps and sheep bedding areas would be determined prior to any grazing use.

(6) ***Girds Creek Allotment*, 02561**

Kind of Livestock: Cattle

Season of Use: April 1 to June 30

Grazing System It would continue to be managed as a "scattered tract" allotment since less than ten percent of the allotment consists of public land. This would continue as long as no detrimental effects occur to the public lands.

Grazing Stipulation: No livestock grazing would be authorized in the Girds Creek Pasture. This is due to lack of fences for livestock control, although, some unauthorized grazing use has occurred.

(7) ***Mary Misener Allotment*, 02592**

Kind of Livestock: Cattle

Season of Use: March 15 to June 1

Grazing System: The allotment is divided into two pastures, but there is no grazing system. In addition, there is a problem whenever cattle use the pasture on top of Sutton Mountain because there is no physical separation between this pasture and the Sutton Mountain Allotment. If this alternative is selected, some type of solution would be needed.

(8) ***Packsaddle Mountain Allotment*, 02659**

Kind of Livestock: Cattle

Season of Use: March 16 to November 15

Grazing System: No established system. It would continue to be managed as a custodial allotment as long as no detrimental effects occur to the public land.

(9) ***Sutton Mountain Allotment*, 02533**

Kind of Livestock: Cattle

Season of Use: April 1 to June 1
October 1 to December 31

Grazing System: The present system is shown in Table 22. Fifty-five AUMs of fall use has been authorized in the fenced western half of the Coyote Springs Pasture.

Grazing Stipulation: All livestock grazing would continue to be excluded from the Agate Point Pasture. Grazing would be authorized only on a as-needed basis.

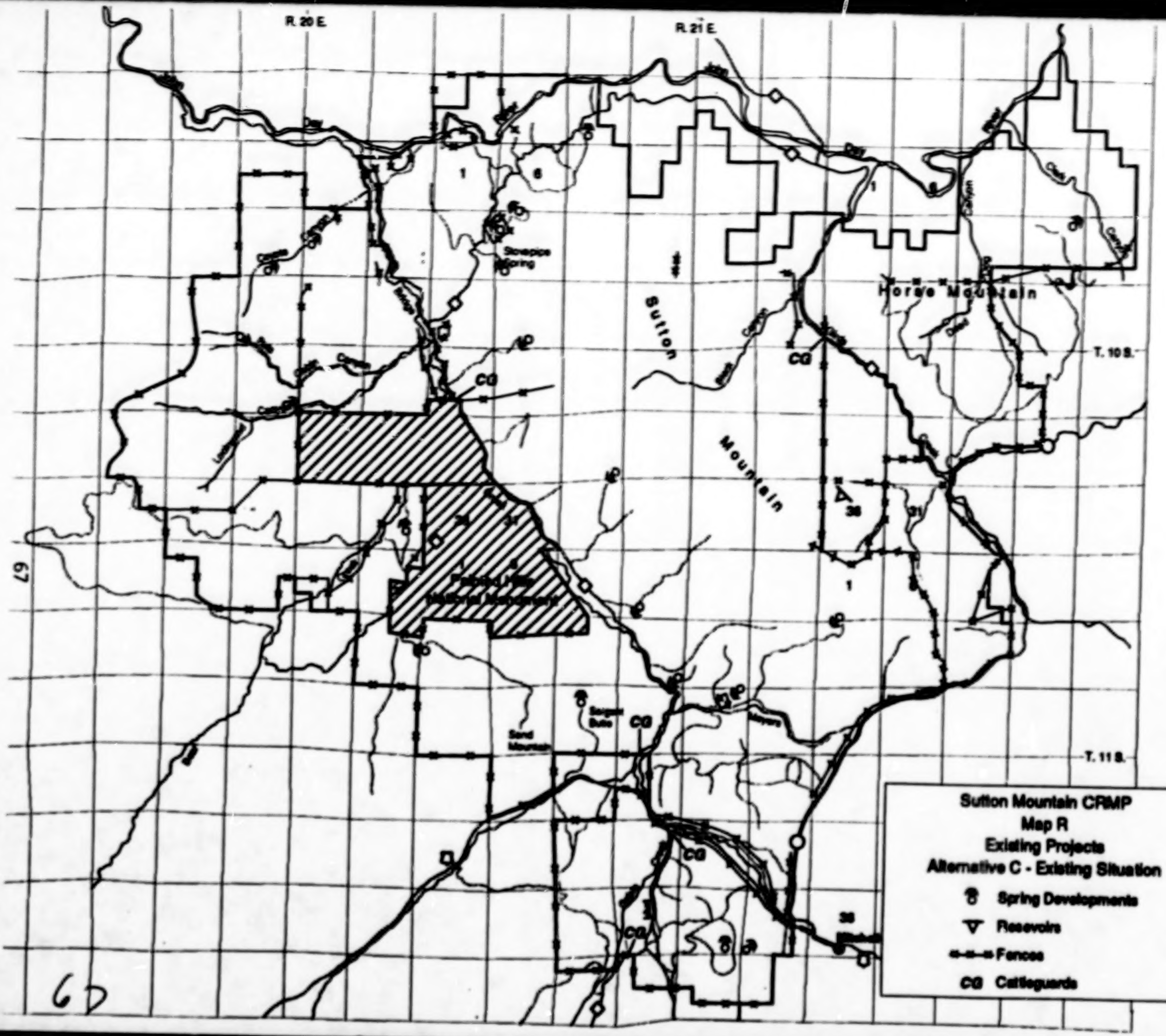
Table 22
Alternative C
Sutton Mountain Allotment - Grazing Schedule

Pasture	Use Period
Coyote Canyon	4/1 - 4/30 10/1 - 12/31
Stovepipe Springs	4/1 - 4/30
Sutton Mountain	5/1 - 6/1

d. Projects

There would be no proposed projects for Alternative C. All known projects are shown on Map R. For a complete listing and description of all the projects for the other alternatives, refer to Appendix J.

67



Sutton Mountain CRMP
Map R
Existing Projects
Alternative C - Existing Situation

6D

E. PREFERRED ALTERNATIVE

Alternative D - Emphasize Natural Values While Accommodating Commodity Production

1. Access

The Sutton Mountain WSA and Pats Cabin WSA would be closed to motorized vehicles all year except for the Meyers Canyon road, Meyers Canyon way, Spring Canyon way, and Stovepipe Spring way. These routes would be open to vehicle use based on the following descriptions. Public lands south of the John Day Fossil Beds National Monument, Painted Hills Unit, west of the Bridge Creek Road, north of Highway 26, and east of a dirt road in T. 11, R. 20, Section 11 would be closed to motorized vehicles. Public roads in the planning area south of Highway 26 would be closed to motor vehicles except for the county maintained road in T. 11 S., R. 21 E., Sections 27, 28 and 33 and two short spur roads (about half-a-mile each in length) originating in Section 33. The remainder of the planning area would be open to motorized vehicles except for the closures described below. (See Map S).

Roads Closed to All Access and Rehabilitated

The following roads would be closed to administrative and public access and rehabilitated:

a. The old Corral road (T. 11 S., R. 22 E., Sec. 7) (1.2 miles) after passing through the crested wheatgrass seeding field.

b. The two short spur roads on the east side of the Gable Creek road. One is located in T. 11 S., R. 21 E., Sec. 28, NE 1/4 SE 1/4 and Sec. 27, SW 1/4 and the other is in T. 11 S., R. 21 E., Sec. 33, NW 1/4 (0.7 miles).

c. The Sergeant Butte road located in T. 11 S., R. 21 E., Sec 17 (0.6 miles).

d. The upper section of the Spring Canyon way located in T. 11 S., R. 21 E., Sec 18, SW 1/4 and Sec 19, NW 1/4 (0.3 miles).

e. The Priest Hole short cut located in T. 10 S., R 20 E., Sec 1 NE 1/4 and T. 10 S., R 21 E., Sec 6 NW 1/4 (0.3 miles).

Road Rehabilitation Methods

The above roads would first be treated by using a harrow type implement to loosen one to two inches of soil surface. The existing vegetation adjacent to the treatment areas would be duplicated as close as possible using the species listed in Table 23. The planting rate would depend on the abundance of adjacent species and the aspect of the slope. The species listed are indigenous to the Northwest. Seed would be planted between September 1 and November 30 using rangeland drills.

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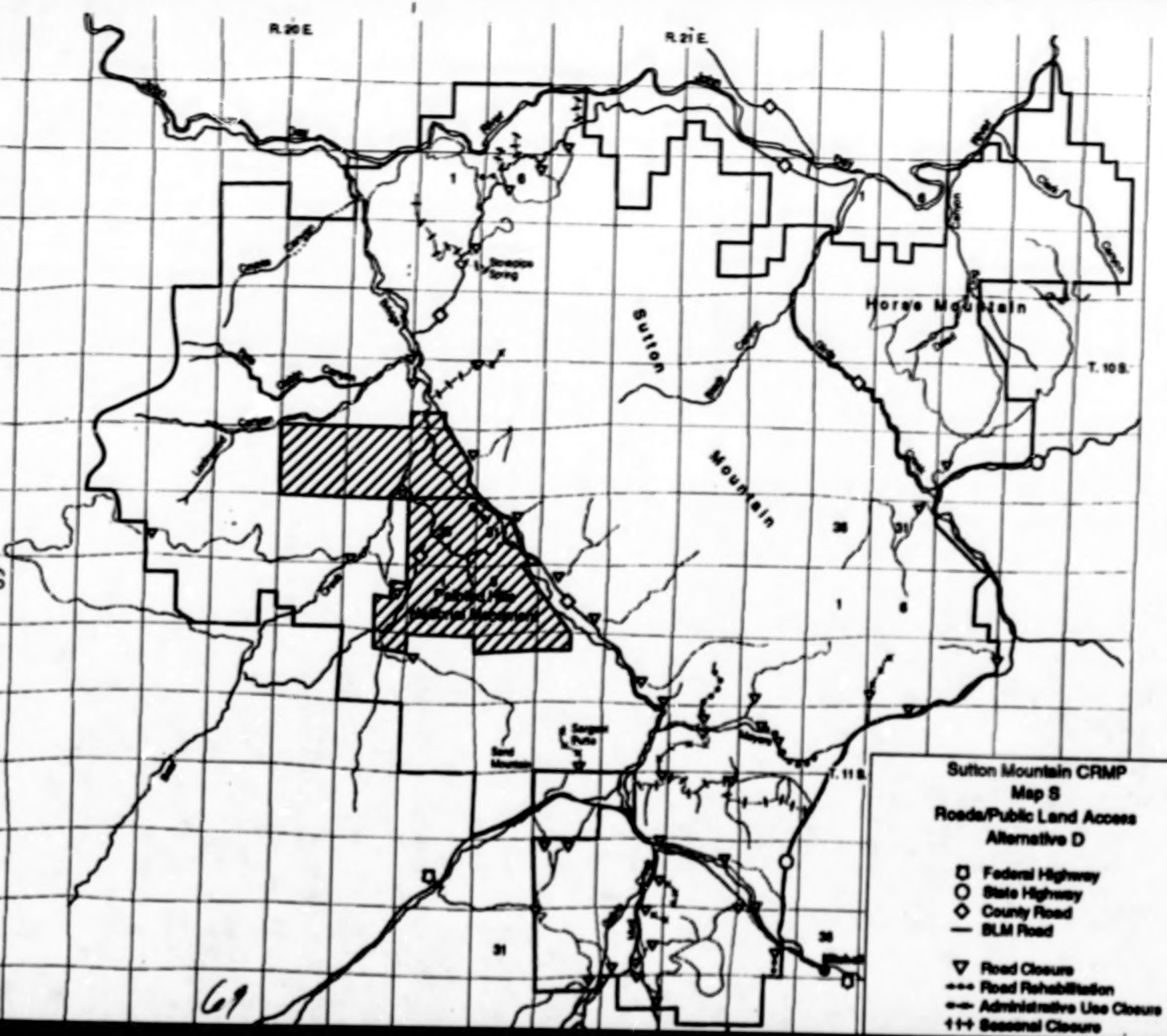


Sutton Mountain CRMP
Map 5
Roads/Public Land Access
Alternative D

Table 23
Alternative D
Road Rehabilitation - Seed Mixture

Common Name	Scientific Name	Cultivar	Aspect	Planting Rate
		Grasses		
Bluebunch Wheatgrass	Agropyron spicatum	Secar	North South	4 lbs/ac 6 lbs/ac
Sand Dropseed	Sporobolus cryptandrus	---	North South	4 lbs/ac 6 lbs/ac
Idaho Fescue	Festuca idahoensis	---	North	6 lbs/ac
Basin Wildrye	Elymus cinereus	Magnar	South	4 lbs/ac
		Forbs		
Sulfur Flower	Eriogonum umbellatum	---	Both	1 lbs/ac
Scarlet Globemallow	Sphaeralcea coccinea	---	North South	2 lbs/ac 3 lbs/ac
Blue Flax	Linum lewisii	Appar	Both	1 lbs/ac
			Total Pounds Per Acre - North - South	18 lbs/ac 21 lbs/ac

Seasonally Closed Roads

The following roads would be closed to motorized use during wet periods as determined by the authorized officer (expected to occur between November 15 and April 15).

a. The road to the John Day River from the Twickenham County road, T. 9 S., R. 21 E., Sec. 32.

b. The two short spur roads north of the Twickenham County road and located in T. 9 S., R. 21 E., Sec. 31 and T. 10 S., R. 21 E., Sec. 6, NW ¼.

c. The long road leading to a ridge top, T. 10 S., R. 20 E., Sec. 2, SE ¼, and Sec. 12.

d. The road to Spring Canyon, T. 10 S., R. 20 E., Sec. 24, and T. 10 S., R. 21 E., Sec. 18, SW ¼, and Sec. 19, NW ¼.

e. The old logging road in T. 11 S., R. 21 E., Secs. 21, 22, 23 and 24.

2. **Leasable Minerals**

This alternative would be the same as Alternative B.

3. **Noxious Weeds**

Target Weeds The focus would be the same as Alternative B - control of Wheeler County "A" and "B" rated weeds.

Control Methods Chemicals applied by spray methods would be the primary means of control, although, a greater emphasis would be put on nonchemical means of control than in Alternative B. Methods such as hand-pulling, disking, plowing, burning and insect introduction would be used when feasible.

Rehabilitation Treated areas would be allowed to reseed naturally, except when the desirable perennial vegetation is less than 30 percent of the live vegetative cover. In this case, the treated area would be seeded to a mixture of native and nonnative grass, forb and shrub species. The kind of species would depend on the type of site and which ones would be best adapted to the site. The application rate and method would be determined by an ID Team at the time a specific project is proposed.

Proposed Treatment Areas Existing areas of yellow starthistle infestations are shown on Map H, Noxious Weeds/Yellow Starthistle. These areas would be treated by the methods allowed under this alternative. Some areas on Map H are included in the dryland seeding treatment areas shown on Maps T and U of this alternative. Those areas of starthistle which are included in a dryland seeding would be treated according to methods proposed under the seeding.

4. Recreation

Roads Refer to Part IV.C.1. - Access.

Off Road Vehicle (ORV) Use No ORV use area would be designated.

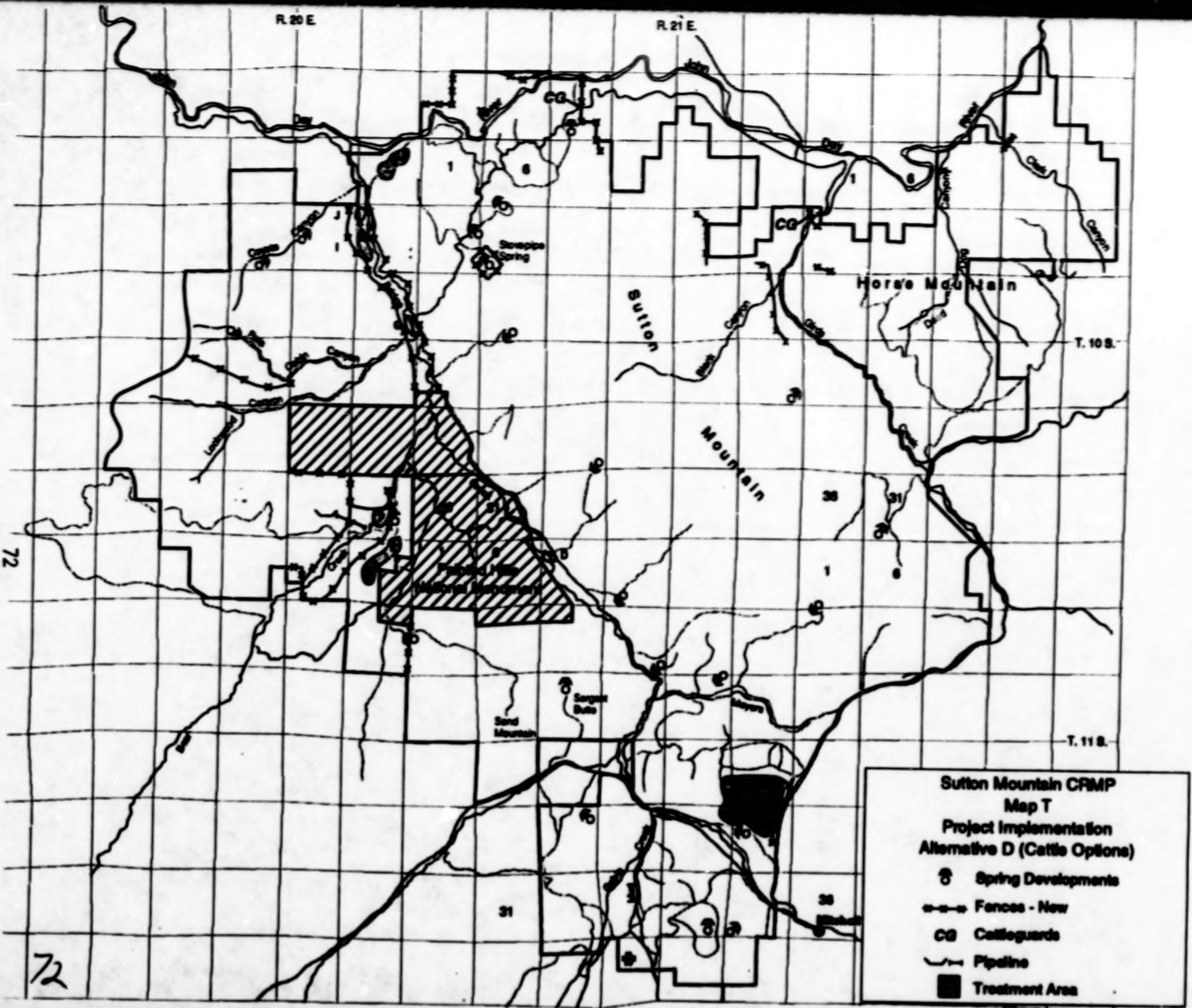
5. Special Status Species - Plants

Survey for special status plants would be emphasized with the goal to inventory the entire CRMP area within five years. Conservation of ecosystems containing these species, as well as conservation of the individual species would occur. All known populations would be evaluated to determine existing threats, and livestock grazing and/or recreational activities would be modified, removed or restricted, as necessary, to maintain or enhance these populations. Suitable ecosystems not presently containing special status species would be managed in such a manner as to conserve their value as future habitat. Examples of these ecosystems would include sites with springs, seeps, moist drainages, unusual/endemic soils and areas not previously grazed by livestock. Quantitative monitoring would be established for all such populations and ecosystems subject to commodity use.

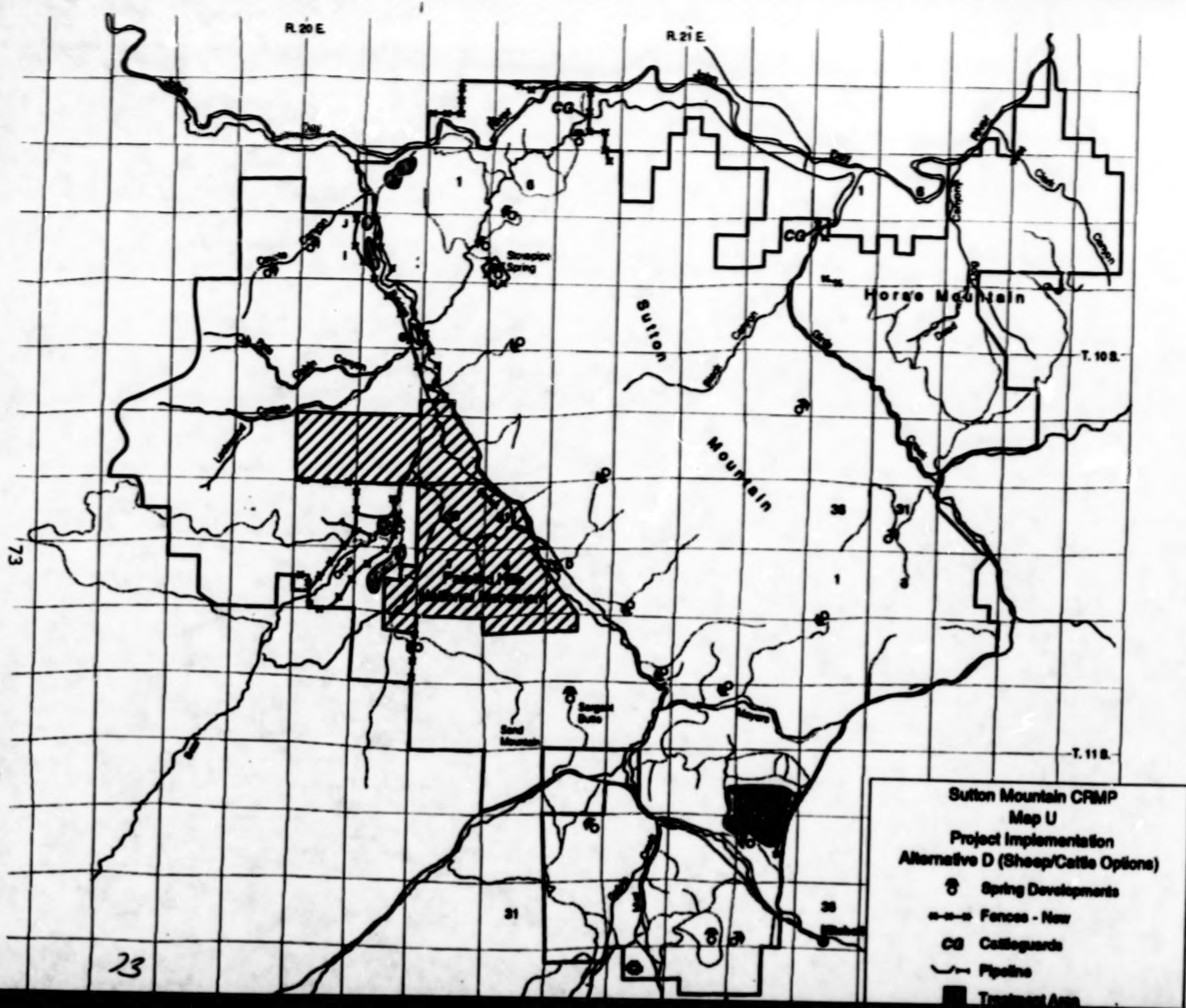
6. Visual Resource Management

All new management facilities and reconstruction projects would comply with the design standards for the visual management class in which they are located.

A cooperative effort would be made with the power company to bury the existing power line which is located along the east side of the Bridge Creek county road. It would be buried from the point at which it is visible from the road in T. 11 S., R. 21 E., Sec. 9 to the boundary of the John Day Fossil Beds National Monument, Painted Hills Unit (approx. 2.5 miles in length).



Sutton Mountain CRMP
Map T
Project Implementation
Alternative D (Cattle Options)



Sutton Mountain CRMP
Map U
Project Implementation
Alternative D (Sheep/Cattle Options)

23

7. Upland Vegetation Manipulations

Vegetation on those sites which may have historically burned would be managed with an emphasis on burning. No more than 20% of any vegetative community type would be manipulated in any five year period.

There would be no restrictions on the kinds of cost effective methods that may be used for vegetation treatments. Areas with more than 40 percent desirable native vegetation present, would be allowed to revegetate naturally. Those areas with less than 40 percent of the species present would be seeded with native species or hybrids of native species.

The emphasis would be on those areas which are in early seral condition, with an abundance of annual vegetation and noxious weeds, but having a potential for improvement. Future areas would be identified through the ESI process. The areas identified during the ESI would be analyzed in a separate EA prior to any treatments being performed.

Proposed Treatment Areas

Listed in Table 24 are eleven areas proposed for treatment. (See Maps T and U, Project Implementation - Alternative D, Sutton Mountain Allotment, both the Cattle and Sheep/Cattle Options).

Table 24
Alternative D and E
Upland Treatment Areas

Area	Number of Acres	Area	Number of Acres
[redacted]	[redacted]	G	36
B	650	[redacted]	[redacted]
[redacted]	[redacted]	I	48
D	32	J	32
E	130	K	46
F	20	[redacted]	[redacted]
TOTAL			994 Acres

Upland Seeding Method

a. A rangeland drill would be used for planting the seed. All seedings would be done during the fall period (October through December).

b. The proposed seed mix is shown in Table 25.

c. Livestock grazing would not be authorized during the first two consecutive growing seasons following the seeding.

Table 25
Alternatives D and E
Upland Species Mix and Application Rate

Common Name	Scientific Name	Cultivar	N/I*	Planting Rate
		Grasses		
Bluebunch Wheatgrass	Agropyron spicatum	Secar	N	4 lbs/ac
Thickspike Wheatgrass	Agropyron dasystachyum	Critana	N	4 lbs/ac
Sand Dropseed	Sporobolus cryptandrus	---	N	4 lbs/ac
Basin Wildrye	Elymus cinereus	Magnar	N	3 lbs/ac
		Forbs		
White Yarrow	Achillea millefolium	---	N	1 lbs/ac
Sulfur Flower	Eriogonum umbellatum	---	N	1 lbs/ac
Munro Globemallow	Sphaeralcea munroana	---	N	2 lbs/ac
Blue Flax	Linum lewisii	Appar	N	1 lbs/ac
		Shrub		
Shadscale	Atriplex confertifolia	--	N	1 lbs/ac
		Total Pounds Per Acre		21 lbs/ac

* N = Native, I = Introduced

8. Water Rights and Agricultural Lands

The 92 Acre, Eighteen Acre, Priest Hole and John Day River agricultural fields would continue to be leased for irrigated crop production. (See Map C, Agricultural Fields and Water Rights). The agricultural fields not leased would be treated to control noxious weed infestations and planted to a perennial vegetation mix as described below.

Agricultural Lands - Treatment Method

a. The year prior to seeding, fields would be treated for noxious weeds by methods which are in conformance with the Prineville Noxious Weed Control EA.

b. The following year, fields would be plowed or disked to prepare a seedbed and treated a second time for noxious weeds.

c. The preferred seeding period would be the fall (October through December). The spring period (February through April) could be used as an alternative. The seedings would be irrigated during the spring and early summer or until the water use is terminated due to low stream flows (based on the irrigation stipulation).

d. Planting would be done by using a seed drill. The seed mix and application rates are shown in Table 26.

e. Livestock grazing would not be authorized during the first two consecutive growing seasons following a seeding.

Table 26
Alternatives D and E
Agricultural Lands - Seeding Mix and Application Rate

Common Name	Scientific Name	Cultivar	N/I*	Planting Rate
		Grasses		
Bluebunch Wheatgrass	*Agropyron spicatum*	Secar	N	4 lbs/ac
Streambank Wheatgrass	*Agropyron riparium*	Sodar	N	2 lbs/ac
Thickspike Wheatgrass	*Agropyron dasystachyum*	Critana	N	4 lbs/ac
Sand Dropseed	*Sporobolus cryptandrus*	---	N	4 lbs/ac
Big Bluegrass	*Poa ampla*	Sherman	N	2 lbs/ac
Basin Wildrye	*Elymus cinereus*	Magnar	N	3 lbs/ac
		Forbs		
White Yarrow	*Achillea millefolium*	---	N	1 lbs/ac
Sulfur Flower	*Eriogonum umbellatum*	---	N	1 lbs/ac
Munro Globemallow	*Sphaeralcea munroana*	---	N	2 lbs/ac
Blue Flax	*Linum lewisii*	Appar	N	1 lbs/ac
		Shrubs		
Shadscale	*Atriplex confertifolia*	--	N	1 lbs/ac
Basin Big Sagebrush	*Artemisia tridentata tridentata*	--	N	¼ lbs/ac
	Total Pounds Per Acre			25¼ lbs/ac

* N = Native, I = Introduced

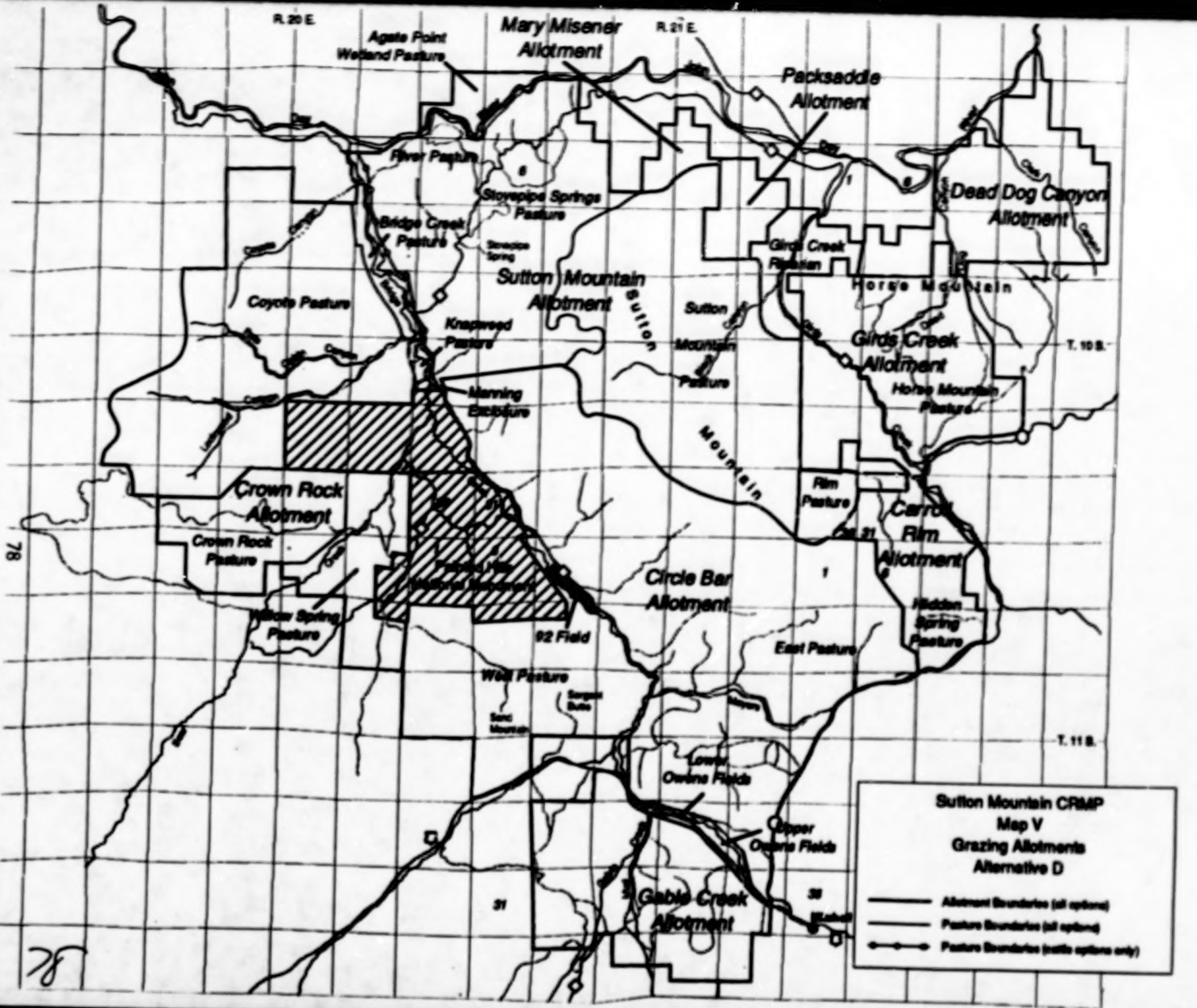
9. Livestock Grazing

a. Allotment Grazing Capacities and Boundaries

The public land livestock grazing capacities and number of acres are summarized below in Table 27. (See Appendix H, Table 42, for a description of how AUM levels were determined, by allotment, for this Alternative D; also, see Appendix I, for a summary of public land acres and AUMs by allotment and alternative). Future use levels and adjustments would be based on monitoring and subsequent allotment evaluations. The proposed allotment and pasture boundary locations are shown on Map V.

Table 27
Alternative D
Public Land Acres and Allowable AUMs

Allotment/Pasture		Public Land Acres	Public Land AUMs*
Carroll Rim	Hidden Spring	1,909	64
	Rim	663	37
	Totals	2,572	101
Circle Bar	West	4,656	240
	East	14,825	397
	Owens Fields	227	0
	Totals	19,708	637
Cram Rock	Bear Creek Riparian	249	0
	Cram Rock	2,463	55
	Willow Springs	1,529	50
	Totals	4,241	105
Dead Dog Canyon	Totals	3,006	243
Gable Creek	Totals	5,025	210
Girds Creek	Girds Creek Riparian	1,035	0
	Horse Mountain	572	61
	Totals	1,607	61
Mary Misener	Totals	893	33
Packsaddle Mountain	Totals	330	20
Sutton Mountain (Cattle Option)	Coyote Canyon	8,364	271
	Stovepipe Springs	7,463	218
	Sutton Mountain	8,620	0
	Bridge Creek Riparian	297	0
	Manning Enclosure	24	0
	Agate Point	547	0
	Totals	25,315	489
Sutton Mountain (Sheep/Cattle Option)**	Coyote Canyon	8,364	271
	Stovepipe Springs	7,760	248
	Sutton Mountain	8,620	0
	Manning Enclosure	24	0
	Agate Point	547	0
	Totals	25,315	519
CRMP TOTALS (Sutton Mountain - Cattle Option)		**63,297**	**1,899**
CRMP TOTALS (Sutton Mountain - Cattle/Sheep Option)		**63,297**	**1,929**



Sutton Mountain CRMP
Map V
Grazing Allotments
Alternative D

Allotment Boundaries (all options)
Pasture Boundaries (all options)
Pasture Boundaries (cattle options only)

b. **Grazing Systems**

(1) **Carroll Rim Allotment, 02590**

Kind of Livestock: Cattle

Season of Use: March 1 to June 1

Grazing System: Rest rotation as shown in Table 28.

Table 28
Alternative D
Carroll Rim Allotment - Grazing Schedule

Pasture	Year One	Year Two
Hidden Spring	4/1 - 4/30	REST
Rim	REST	4/15 - 4/30

(2) **Circle Bar Allotment, 02531**

(a) Cattle/Sheep Option

Kind of Livestock: Cattle and Sheep

Season of Use: Cattle, November 1 to April 1
Sheep, April 1 to May 30

Grazing System: Half the total AUMs (318) may be authorized for cattle use and half for sheep use or all the AUMs may be used for cattle use. The maximum number of AUMs allowed during the spring period would be 318, but all the AUMs may be authorized during the fall/winter period.

Grazing Stipulations - Cattle:

1) Livestock would be herded daily. Cattle found within one-half mile of Bridge Creek or Meyers Canyon would be moved to higher areas to establish a pattern of grazing away from riparian zones.

2) Utilization of the riparian vegetation, by livestock, would be no greater then 20% at any one location. Beyond this level of use, grazing would be terminated for the remainder of the use period.

Grazing Stipulations - Sheep: The stipulations listed below, under the Sheep Option, would be adhered to while sheep use is occurring.

(b) Sheep Option

Kind of Livestock: Sheep

Season of Use: April 1 to May 30
October 15 to December 31

Grazing System: There would be two use areas - the west and east sides of Bridge Creek. Either half the AUMs (318) could be used during the spring and half (319) during the fall/winter, or the entire 637 AUMs in the fall/winter.

Grazing Stipulations:

(a) Sheep would be herded while using public land.

(b) Locations for sheep camps and sheep bedding areas would be determined prior to any grazing use.

(c) Utilization of the riparian vegetation, by livestock, would be no greater then 20% at any one location. Beyond this level of use, grazing would be terminated for the remainder of the use period. No use would be allowed in the bottom of Meyers Canyon.

(d) Grazing use by sheep, on bitterbrush, would be no greater than 10% of the current years growth in the following locations: T.11S., R.22E., Secs. 5 W½SW¼, 6, 7 and 8 W½W½; and T.11S., R. 21E., Secs. 11 SE¼, 12, 13, 14, 23 N½ and 24 NW¼NW¼.

(e) Grazing or trailing sheep would be avoided across rocky scabby soils and exposed clay slopes with little vegetation. These soils are extremely erosive (Very gravelly and very shaly loams - Donning and Venator Soil Series).

(f) No livestock grazing would be allowed along Bridge Creek, west of the 92 Pasture.

(3) Crown Rock Allotment, 02609

Kind of Livestock: Cattle

Season of Use: April 15 to May 30
October 15 to December 15

Grazing System: A two pasture deferred system as depicted in Table 29.

Grazing Stipulation: The Bear Creek Riparian Pasture would be excluded from livestock grazing pending complete recovery.

Table 29
Alternative D
Crown Rock Allotment - Grazing Schedule

Pasture	Year One		Year Two	
	Spring	Fall	Spring	Fall
Willow Spring	4/15 - 5/1	10/15 - 12/15	5/2 - 5/30	
Crown Rock	5/2 - 5/30		4/15 - 5/1	10/15 - 12/15

(4) *Dead Dog Canyon*, 02537

Kind of Livestock: Cattle

Season of Use: Nonuse for three consecutive years pending inventory of the biological attributes and determination of the carrying capacity and best management practices.

Grazing System: Nonuse.

(5) *Gable Creek Allotment*, 02516

(a) Cattle Option

Kind of Livestock: Cattle

Season of Use: November 1 to December 30

Grazing System: One pasture, fall/winter use every other year.

Grazing Stipulations:

1) Livestock would be herded each day. Cattle found within one-half mile of Bridge, Gable, Mud and Nelson Creeks would be moved to higher areas to establish a pattern of grazing away from riparian zones.

2) Utilization of the riparian vegetation, by livestock, would be no greater then 20% at any one location. Beyond this level of use, grazing would be terminated for the remainder of the use period.

(b) Sheep Option

Kind of Livestock: Sheep

Season of Use: March 15 to May 1

Grazing System: One pasture, spring use only.

Grazing Stipulations:

1) Sheep would be herded while using public land.

2) Locations for sheep camps and sheep bedding areas would be determined prior to any grazing use.

3) Grazing or trailing sheep would be avoided across rocky scabby soils and exposed clay slopes with little vegetation. These soils are extremely erosive (Very gravelly and very shaly loams - Donning and Venator Soil Series).

4) No grazing would be authorized for the Weddle Creek drainage pending riparian recovery.

5) Livestock watering would be limited to developed springs. Watering from Gable, Mud and Nelson Creeks would be done only when absolutely necessary.

6) Utilization of the riparian vegetation, by livestock, would be no greater then 20% at any one location. Beyond this

level of use, grazing would be terminated for the remainder of the use period.

(6) *Girds Creek Allotment*, 02561

The same as Alternative A.

(7) *Mary Misener Allotment*, 02592

Kind of Livestock: Cattle

Season of Use: April 1 to May 15

Grazing System: One pasture spring use only.

(8) *Packsaddle Mountain Allotment*, 02659

Kind of Livestock: Cattle

Season of Use: March 15 to May 1

Grazing System: Two consecutive years of use and one year of rest.

(9) *Sutton Mountain Allotment*, 02533

Under options (a) and (b) below, the Sutton Mountain Pasture would be rested for a minimum of five years beginning on January 1, 1996, to allow for riparian area recovery. The riparian and upland vegetation would be intensively monitored during the period. Prior to the end of the five years a determination would be made to either continue the rest for a set number of additional years or allow grazing. If the decision is made to authorize grazing, an initial carry capacity (in AUMs) and a grazing system would be established before grazing would occur.

(a) Cattle Option

Kind of Livestock: Cattle

Season of Use: April 1 to December 31

Grazing System: A two pasture deferred rotation system, as shown in Table 30.

Grazing Stipulations:

1) The Sutton Mountain Pasture would be rested for a minimum of five years.

2) The Bridge Creek Riparian and Agate Point Pastures would be excluded from grazing pending a return to proper functioning condition.

3) The Manning Exclosure would be permanently excluded from grazing.

Table 30
Alternative D
Sutton Mountain Allotment - Grazing Schedule
Cattle Option

Pasture	Year One		Year Two	
	Spring	Fall	Spring	Fall
Coyote Canyon	4/1 - 4/30	▨	▨	10/15 - 12/15
Stovepipe Springs	▨	10/15 - 12/15	4/1 - 4/30	▨

(b) **Sheep/Cattle Option**

Kind of Livestock: Sheep/Cattle

Season of Use: April 1 to May 30
October 15 to December 31

Grazing System: A modified deferred system, as shown in Table 31. No more then three-quarters of the total authorized AUMs would be licensed in any one season. The following areas would be excluded from livestock grazing - Bridge Creek Riparian, Manning Exclosure, Sutton Mountain Pasture and Agate Point.

Cattle Grazing: A total of 43 AUMS would be authorized for cattle use. This would be the result of combining the Chapman Springs Pasture of the Mary Misener Allotment (02592) with the Sutton Mountain Allotment. (See Part IV.B.5.b. for additional information on the AUM transfer).

Grazing Stipulations:

1) The Sutton Mountain Pasture would be rested for a minimum of five years.

2) Sheep would be herded while using public land.

3) Locations for sheep camps and sheep bedding areas would be determined prior to any grazing use.

4) Sheep use in the Bridge Creek Riparian zone would be limited to occasional watering and crossing the creek. The majority of watering would be done at developed springs. Utilization of the riparian vegetation would be no greater than 20% at any one location.

5) The Bridge Creek Riparian Pasture and Agate Point Pastures would be excluded from grazing pending a return to proper functioning condition.

6) The Agate Point Pasture would be a wetland restoration area and grazing would be authorized on a as-needed basis.

7) The Manning Exclosure would be permanently excluded from grazing.

Table 31
Alternative D
Sutton Mountain Allotment - Grazing Schedule
Sheep/Cattle Option

Use Area	Year One		Year Two	
	Spring	Fall	Spring	Fall
Coyote Canyon	Sheep 4/1 - 4/21	Sheep 11/26 - 12/15	Cattle 4/24 - 5/15	Sheep 10/15 - 11/4
Stovepipe Springs	Cattle 4/24 - 5/15	Sheep 10/15 - 11/4	Sheep 4/1 - 4/21	Sheep 11/26 - 12/15

c. Projects

All the proposed projects for Alternative D are summarized in Table 32. The term "Grazing Option" refers to the Cattle and Sheep/Cattle Options for the Sutton Mountain Allotment. For a complete listing and description of all the projects refer to Appendix J. (See Map T for the project locations under Sutton Mountain Allotment - Cattle Option and Map U for Sutton Mountain Allotment - Sheep/Cattle Option).

Table 32
Project Summary - Alternative D

Grazing Option	Project Type	Units
Sutton - Cattle	Fences - New	15.4 Miles
	Fences - Reconstruction	5.3 Miles
	Fences - Relocation	0.6 Miles
	Cattleguards - 16' width	1
	Cattleguards - 22' width	1
	Springs - New	5
	Springs - Reconstruction	19
	Hydroram	1
Sutton - Sheep/Cattle	Fences - New	14.0 Miles
	Fences - Reconstruction	2.2 Miles
	Fences - Relocation	0.6 Miles
	Cattleguards - 16' width	1
	Cattleguards - 22' width	1
	Springs - New	5
	Springs - Reconstruction	19
	Hydroram	1

F. Alternative E - Emphasize Natural Values

1. Access

The same as Alternative D.

2. Leasable Minerals

This alternative would be the same as Alternative D, but with the following addition which would apply in certain sensitive areas with a variety of high resource values.

Steelhead Spawning and Rearing Streams A NSO stipulation would apply to within one half mile of Bridge and Bear Creeks. If extraction of the mineral is not considered feasible under these conditions, the area would not be leased for oil & gas exploration & development.

3. Noxious Weeds

Target Weeds Target weeds would be the same as Alternative D (Wheeler County "A" and "B" rated weeds). The rate and number of species targeted would depend on funding and which species are causing the greatest problem.

Control Methods Only nonchemical methods would be used, such as hand-pulling, disking, plowing, burning and insect introduction.

Rehabilitation Treated areas would be allowed to reseed naturally, except when the desirable perennial vegetation is less than 30 percent of the live vegetative cover. In this case, the treated area would be seeded to a mixture of only native grass, forb and shrub species. The kind of species would depend on the type of site and which ones would be best adapted to the site. The application rate and method would be determined by an ID Team at the time a specific project is proposed.

Proposed Treatment Areas Existing areas of yellow starthistle infestations are shown on Map H, Noxious Weeds/Yellow Starthistle. These areas would be treated by the methods allowed under this alternative. Some areas on Map H are included in the dryland seeding treatment areas shown on Map V. Those areas of starthistle which are included in a dryland seeding would be treated according to methods proposed under the seeding.

4. Recreation

Roads Refer to Part IV.B.1. - Access.

5. Special Status Species - Plants

Survey for special status plants would be emphasized with the goal to inventory the entire CRMP area within five years. Conservation of ecosystems containing these species, as well as conservation of the individual species would occur. All known populations and ecosystems would be evaluated to determine existing threats, with particular attention toward noxious weeds. Suitable ecosystems not presently containing special status species would be managed in such a manner as to conserve their value as future habitat. Active re-introduction of special status plants into suitable ecosystems would occur. Examples of these ecosystems would include springs, seeps, moist drainages, unusual/endemic soils and areas not previously grazed by livestock.

Non-chemical control of noxious weeds threatening any special status plant population or associated ecosystem would receive high priority related to other noxious weed control efforts in the CRMP area.

6. Visual Resource Management

All the existing human modifications would be inventoried and brought into compliance with the standards for the particular Management Class where they are located.

A cooperative effort would be made with the power company to bury the existing power line which is located along the east side of the Bridge Creek County Road. It would be buried from the point along the road where the line can first be seen, when going north, to a point where the public land ends.

7. Upland Vegetation Manipulations

Vegetation Treatments The emphasis would be on those areas which are in early seral condition, with an abundance of annual vegetation and noxious weeds, but having a potential for improvement. The areas proposed for treatment under this alternative are the same as those listed under Alternative D. (See Map W).

Future areas would be identified through the ESI process. The areas identified during the ESI would be analyzed in a separate EA prior to any treatments being performed.

Upland Seeding Treatments Burning would be the only treatment used under this alternative prior to the seedings. Burn plans would be developed and implemented within three years of this CRMP being completed. Those fields listed under Alternated D would be treated. Burning would occur during the summer at a time prior to seed dissemination for a majority of the annuals and weedy species.

The burned treatment areas would be seeded using rangeland drills. All seedings would be done during the late season months - October, November and December.

8. Water Rights and Agricultural Lands

This alternative would be the same as Alternative D, except none of the agricultural fields would to be leased for irrigation and crop production. (See Map C, Agricultural Fields and Water Rights). All twelve fields would be planted to the seed mix listed in Table 25 of Alternative D.

9. Livestock Grazing

a. Allotment Grazing Capacities and Boundaries

The public land in the CRMP area would not be authorized for livestock grazing. (See Map A).

b. Projects

Proposed projects for Alternative E are summarized in Table 33. (See Map W, Project Implementation, Alternative E). For a complete listing and description of all the projects refer to Appendix J.

Table 33
Project Summary - Alternative E

Project Type	Units
Fences - New	5.2 Miles
Fences - Reconstruction	0.0 Miles
Fences - Relocation	0.0 Miles
Cattleguards - 16' width	1
Cattleguards - 22' width	1
Springs - New	0
Springs - Reconstruction	0
Hydroram	0

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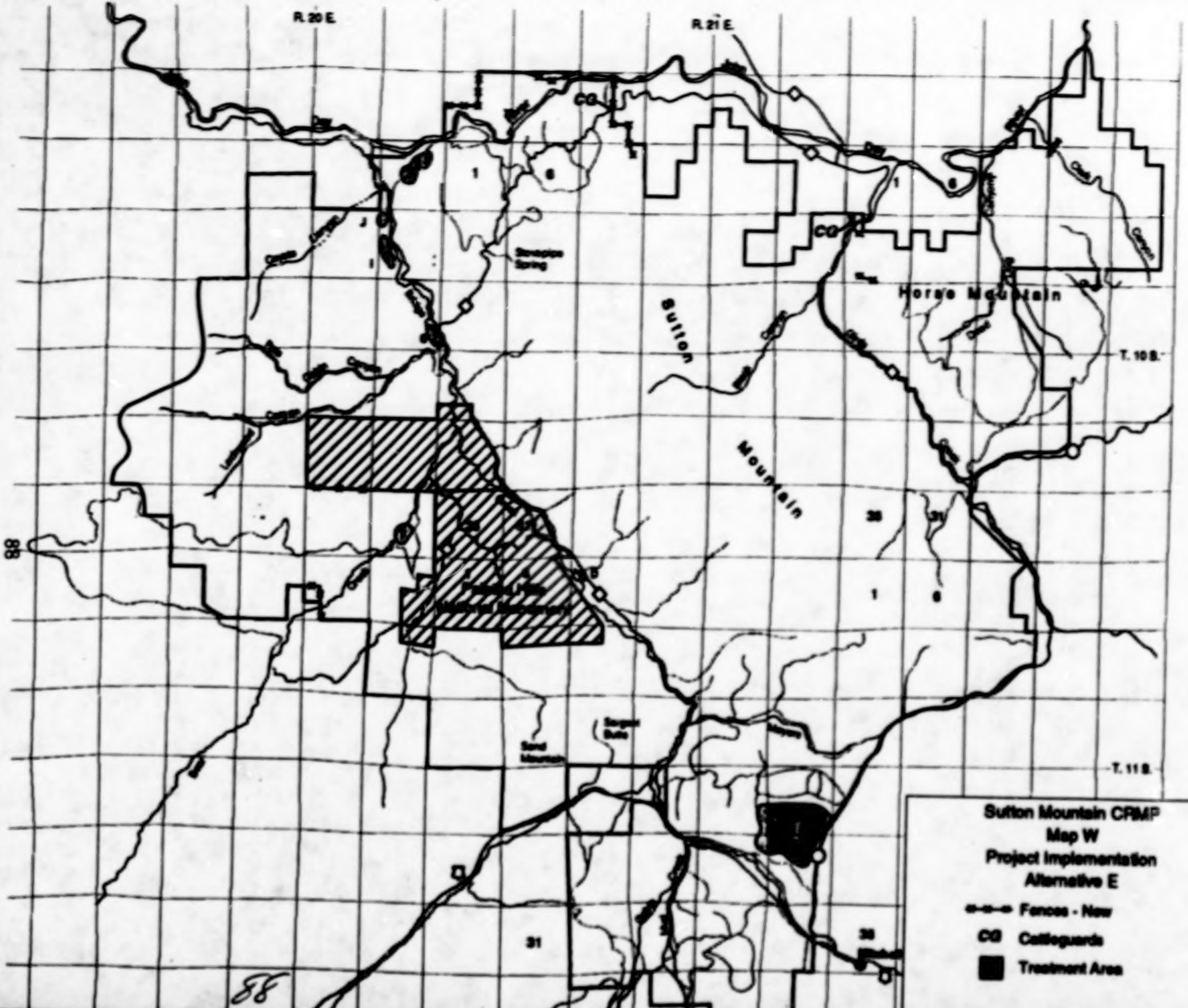

R. 20 E.
R. 21 E.
T. 10 S.
T. 11 S.
CG
CG
1
6
1
1
6
J
1
Sutton Mountain
Horse Mountain
Stevenson Spring
Sand Mountain
Sugar Butte
30
31
1
6
31
30
Sutton Mountain CRMP
Map W
Project Implementation
Alternative E
Fences - New
CG Cattleguards
Treatment Area

Part V. Affected Environment

A. Resource Values

1. Air Quality

Air quality is generally excellent in the CRMP area. Visibility distances are usually high (60 to 80 miles), but no actual monitoring data is available from within the CRMP area. Occasionally the quality is adversely impacted by controlled agricultural burning practices and wildfires.

2. Climate

Climate is characterized by long, cool, moist winters and short, warm, dry summers. The average rainfall of between ten and eleven inches per year occurs mainly during the winter and early spring. Thunderstorms often occur in the late spring and summer months and can be very intense, but localized, in nature.

3. Cultural/Historical

The prehistory of the Sutton Mountain area is not well understood. Current available information from adjacent regions suggests that Central Oregon has been utilized variably for the last 7,000 - 5,000 years by hunters and gatherers. Most of the archaeological data from Sutton Mountain indicates use during the last 2,000 years. Although few surveys have been conducted, the site types recorded have been quite varied. Lithic flake scatters, a lithic quarry, several house pit sites, and a pictograph panel associated with a lithic flake scatter are among the site types observed. Geographically, areas along the river, perennial streams and surrounding springs will be highly sensitive for the occurrence of these site types. In addition, it is suspected that Bridge Creek provided a prehistoric corridor for the movement of people from the Plateau region to the Big Summit Prairie where annual root festivals were held. Ethnographic information indicates that this area was held by the Northern Paiute prior to European contact, but was taken through force by the Tenino shortly before the signing of the 1855 Treaty. In reality, this area was probably shared by both groups.

Initial historic use of the Sutton Mountain area was associated with homesteading, mining and travel. The road between the John Day River and Mitchell closely parallels the route which miners from the Dalles travelled on their way to the John Day/Dayville gold mines. This route was known as the Dalles Military Road. Few traces of the original road exist in pristine condition. Homesteading sites were associated with ranching, either sheep or cattle ranching.

4. Energy and Minerals

The Clarno Formation underlies the John Day Formation and is of late Eocene to early Oligocene age. It has an aggregate thickness of several thousand feet. It is characterized by a variety of volcanic and related terrestrial rocks, including mafic lava flows, coarse unsorted breccias, mudflows, tuffaceous sediments and silicic domes.

Significant geologic formations in the area include the Clarno Formation, John Day Formation and the Columbia River Basalt Group.

The John Day Formation is of Oligocene to early Miocene age. It is widely known for its abundant, well preserved plant and vertebrate animal fossils. Approximately 3,000 feet of varicolored siltstones, claystones and vitric tuffs make up most of the formation.

The Columbia River Basalt Group averages 2,000 to 3,000 feet in thickness. It is the youngest of the three major formations and overlies the John Day and Clarno Formations. It forms the walls which overlook Bridge and Girds Creek, and the John Day River. The group is composed primarily of continental flood basalts of the Miocene age. They are generally dense, black and fine grained with subordinate tuffaceous sediments.

Leasable Minerals Some potential exists for the discovery of oil and gas deposits, mainly in the areas north of Meyers Canyon.

Locatable Minerals The opportunities are low for the exploration, discovery and development of minerals such as gold, silver, mercury and other locatables in the area.

Salable Minerals Sources of sand, gravel and deposits of crushable rock exist in the area. One active gravel pit exists in Meyers Canyon; however, there are three other gravel pits which are not used at this time.

5. Fish and Aquatic Habitat

Over nineteen (19) miles of Bridge Creek were inventoried for fish habitat during the summer of 1992. The stream may be characterized as a low gradient meandering channel with occasional patches of riparian vegetation such as willows (*Salix sp.*). The riparian vegetation also included some large cottonwood trees which provide shade and the potential for woody debris into the creek. The stream-bed composition consists primarily of cobbles, gravel and silt.

In-stream Habitat

In-stream habitat consisted of a balanced diversity of habitats types, including: pools (31%), riffles (39%), glides (23%) and side channels (5%), which totaled 1258 separate habitat units. The average stream width was 10.5 feet and the length of each habitat unit ranged between 30 - 60 feet. The maximum depth ranged between 0.8 - 1.0 feet. Spawning gravel occurred in approximately 5% of the area sampled. Average residual pool depth or depth at no-flow (0.0 cfs) is 0.2 feet. Sixteen (16%) of the pools had been created by beaver, 1% were created by habitat structures and 83% were natural - such as lateral scours or plunge pools. Canopy closure of vegetation generally increased the farther upstream, but varied by the amount of closure and habitat type. (See Table 32). Overall, 705 habitat units (56%) of the sample contained some amount of canopy closure or shade, but only six percent had an adequate amount of shade.

Table 34
Percent of Habitat Type By Canopy Closure

Habitat Type	Canopy Closure				
	0%	1-24%	25-49%	50-74%	75-100%
Riffles	17	20	2	1	<1
Pools	13	10	2	<1	<1
Glides	10	9	3	<1	<1
Side Channels	2	2	<1	<1	<1

Streambank erosion, as indicated by the presence of cut banks, was observed in 369 habitat units or 30% of all habitat units. Table 35 summarizes the presence of cut banks by habitat type.

Table 35
Number of Units By Habitat Type With Cut Banks

Habitat Type:	Number of Units:
Riffle	174
Pool	112
Glide	75
Side Channel	8

Macroinvertebrates

Macroinvertebrate communities of Bridge creek have been studied for four years (1988-19991). Data from two locations, one downstream near the confluence with the John Day River and the other upstream near the town of Mitchell, have been analyzed by the Aquatic Ecology Laboratory, USFS, Region Four. The following points are a summary of their findings: 1) the downstream location is low in biological diversity and productivity, while greater at the upstream location, 2) communities at both locations are made up of organisms that are tolerant of sediment which are indicators of poor water quality, and 3) species composition of the downstream community indicate a stressed biological condition.

Water Temperature

Water temperature has been studied since 1992. There are six (6) stations on Bridge Creek. The locations are: 1) Bridge Creek near the USGS gaging station, 2) Bear Creek near Painted Hills, 3) main stem Bridge Creek near Meyers Canyon,. 4) main stem Bridge Creek below confluence of Gable Creek, 5) Gable Creek and 6) Nelson Creek, each just above its confluence with Bridge Creek.

Temperature profiles of all six stations are similar. Each exhibit wide daily fluctuations, especially during the summer. The same day to day variations can be seen at each station and may indicate that ambient air temperature is a very significant influence on water temperature. By mid-April the maximum water temperature (the daily high) begins to exceed the preferred water temperature criteria (58 degrees F) for steelhead. By the end of April or early May, maximum water temperature can exceed the upper lethal water temperature criteria (58 degrees F). Daily lethal water temperatures can occur throughout the summer until mid-October.

Table 34 summarizes 1992 data for five stations in the CRMP area. The Nelson Creek station was established in 1994 and has not been included. Column three represents the number of days that the water temperature exceeded 15 degrees C or 58 degrees Fahrenheit, the upper preferred water temperature for steelhead as defined by Northwest Power Planning Council. Column four represents the number of days that the temperature exceeded 24 degrees C or 75 degrees F which is the upper lethal limit for steelhead.

In general there is a substantial heat gain between the upper stations, Numbers 3 and 5, and downstream at Station No. 1 near the lower bridge. Between Gable Creek and the lower bridge there are 67 more days of lethal conditions. Water temperature of Bear Creek also reaches lethal levels for 109 days during the year. Lethal conditions can begin as early as April and continue until mid September. Typically there is a daily variation in temperature. The difference between a daily high and low can range from 10 degrees Centigrade (C) or 18 degrees Ferinheight (F) in February, to 18 degrees C or 32 degrees F in July. Such wide differences are probably attributed to the direct exposure of sunlight upon the water surface. When compared to Table 36, 94 percent of all steelhead habitat lack a sufficient amount of shade to buffer the influence of sunlight.

Table 36
Temperature Categories and Total Days

Station No	Location	No. Days > 15 C Above Optimum Temperature	No. Days > 24 C Above Lethal Temperature
1	Bridge Creek near lower bridge	192	102
2	Bridge Creek above Meyers Canyon	181	75
3	Bridge Creek near Highway 126 crossing	48	0
4	Bear Creek	207	109
5	Gable Creek	177	35

6. Native American Religious Concerns

There is no known current use of the area by Native Americans for religious or traditional subsistence activities.

7. Native American Traditional Interests

Four tribal governments maintain traditional interests in the planning areas addressed in the Prineville District RMPs (Two Rivers, Brothers/LaPine, and John Day). Included are lands ceded to the U.S. Government by tribal governments of the Confederated Tribes of Warm Springs, the Confederated Tribes of Umatilla, and the Klamath Tribe in ratified treaties. Also included are lands of traditional interest to the Burns Paiute for which no treaties were ratified. Treaty rights provide for off-reservation hunting, fishing, gathering, and grazing activities by the Warm Springs and Umatilla Tribes.

The heritage-related interests of contemporary Native Americans include the protection of Indian burials and archaeological sites, as well as the perpetuation of traditional practices. Federal legislation and Departmental policy recognize that federal land-managing agencies have a continuing trust responsibility to honor the terms of the treaties and to protect the rights of Indian Nations, as well as the resources that provide for those rights.

Memoranda of Understanding have been developed between the Bureau of Land Management and the Confederated Tribes of Umatilla and Warm Springs Reservations, regarding the appropriate level and timing for consultation that may be required by the Archaeological Resources Protection Act (1979), National Environmental Policy Act (1979), and the National Historic Preservation Act (1966). That is, the BLM will consult with the appropriate tribal representatives in the earliest stages of project or activity planning that may affect tribal interests. Memoranda of Understanding will also be pursued with the Burns Paiute and Klamath Tribes.

8. Noxious Weeds

Several species of noxious weeds occur in the CRMP area, primarily in the drainage bottoms, low elevation uplands and historic agricultural fields. The total acres of each species is not known, but this determination would be made during the ESI. Table 37, on the following page, lists the noxious weed species which are known to occur in the CRMP area.

Table 37
Sutton Mountain CRMP
Occurrence of Noxious Weeds - 1993

Common Name	Scientific Name
Yellow starthistle	Centaurea solstitialis
Spotted knapweed	Centaurea maculosa
Russian knapweed	Centaurea repens
Canada thistle	Cirsium arvense
White top, hoary cress	Cardaria draba
Medusahead rye	Taeniatherum caput-medusae
Scotch thistle	Onopordum acanthium
Puncturevine	Tribulus terrestris

9. Paleontological

Interestingly, Sutton Mountain is the site of some of the earliest paleontological exploration in the State or the West. Dr. Thomas Condon travelled here from the Dalles in the mid to late 1860's and recovered specimens which helped to interpret the evolution of the horse. In 1899, researchers from the University of California, Berkeley, spent time at Sutton Mountain surveying and collecting vertebrate fossils. Current research on Sutton Mountain indicates that fossil localities on the mountain can provide important information concerning the Haystack Member of the John Day Formation. There is on-going research at these sites that are considered internationally significant. The Painted Hills Unit of the John Day Fossil Beds National Monument is surrounded by lands administered by the Bureau of Land Management.

10. Riparian

With reduced grazing and an increase in beaver activity, riparian zones have recovered significantly in the last six years. The reduction in grazing has allowed vegetation to grow uninhibited along most perennial flows. Higher, denser stands of grass, sedges, rushes, forbs and willows have allowed more sediment to be trapped, building banks, raising the stream channels and expanding the riparian zone. Also, beavers built more than 160 dams between 1988 and 1994. These dams have raised water tables, moderated flows, and promoted the increase of riparian habitat.

Riparian Communities Riparian communities in the upper end of the CRMP area along Bridge Creek have shown the greatest improvement. Areas that in 1988 contained few willows now have well established communities of coyote willow (*S. exigua*). Those areas that contained communities of coyote willow in 1988 are slowly being replaced by communities with more long lived willows such as whiplash willow (*S. lasiandra*), peach-leafed willow (*S. amygdaloides*), and McKenzie willow (*S. rigida*), as well as other woody riparian species including mountain alder (*Alnus tenuifolia*), water birch (*Betula occidentalis*), black cottonwood (*Populus trichocarpa*), and red osier dogwood (*Cornus stolonifera*).

Tributaries of Bridge Creek in the upper end of the CRMP area including Nelson Creek, Gable Creek (also its tributaries, Mud Creek and Weddle Creek), and Myers Canyon Creek have improved less primarily because of their steeper gradients and lower flows. Continued disturbance has also played a part. A spring development and road construction along Nelson Creek resulted in the direct destruction of about half a mile of riparian communities and an indirect negative impact on downstream communities through increased cutting and sedimentation. Road construction also destroyed riparian vegetation along a quarter mile stretch at the upper end of Gable Creek. Gable Creek has also been heavily impacted by sediment released from breached irrigation ditches in the upper part of its drainage. Slower recovery of Myers Canyon Creek has resulted from low flows and its intermittent character. The only other tributary in the upper end of the CRMP area is the West Branch of Bridge Creek which enters Bridge Creek on private land. This tributary and the private section of Bridge Creek around its confluence have shown very little improvement since 1988.

The lower part of Bridge Creek from about RM 12.75 has generally shown less improvement than it has in the upper end of the CRMP area. Much of this section is bordered by agricultural fields and pastures that have been used in most of the last six years. It is not, however, simply the use of these fields that is the problem. Much of this section of Bridge Creek has been channelized to increase field size. A straightened channel between upper and lower elevations of the drainage and the resulting higher stream gradient dewaters the creek more quickly and makes it prone to downcutting. The result is that a gully has formed, the water table has been lowered and riparian vegetation has become limited to a narrow band on either side of the creek. But it has been a long time since the channelization. During the intervening years erosion has widened the gully in many places creating a small flood plain where the creek has once again started to meander. It is in these widened gullies that much of the recent riparian improvement has occurred. Sections that were not channelized in the beginning were in somewhat better condition and have shown greater improvement. Although riparian diversity is not as great in the lower part of Bridge Creek, all of the same species occur and are increasing.

Two tributaries exist in the lower end of Bridge Creek. They include Bear Creek and Stovepipe Springs Creek. In the past Bear Creek has endured nearly year round grazing on the public section by a few cattle. This has resulted in a poorly vegetated riparian zone with a few stunted willows and alders for most of the reach. Stovepipe Springs Creek including Stovepipe Springs has also been grazed quite heavily mostly during the spring. Flow below the spring is seasonal, occurring primarily during the time of snowmelt and spring rains. Riparian vegetation is mostly restricted to Stovepipe springs and a number of seeps that exist along the length of the creek. These areas are vegetated primarily with sedges. Very little woody riparian vegetation exists anywhere on Stovepipe Springs Creek.

In addition to the tributaries mentioned riparian areas exist along Girds Creek, a tributary to the John Day River and along a number of springs and spring runs scattered throughout the CRMP area. Many of these have been degraded by unrestricted cattle use or development in the past. Others however, are found in places such as the steep slopes of Sutton Mountain where they are less often disturbed. Although springs with well developed riparian areas are rare in the CRMP area, it is possible to find most of the species present along the perennial creeks, on spring runs. With protection, the potential for increased vegetation at many of these springs is high.

Beaver Activity Beavers have accelerated the recovery process by raising water tables and extending late summer flows through slow release of stored water allowing riparian areas to expand. Sediment accumulated behind beaver dams increases the rate of stream aggradation and bank building as well as providing fresh substrate for the colonization of willows and other riparian vegetation. Beaver activity has been most intense in the Owen's fields area, along the Painted Hills unit of the John Day Fossil Beds between RM 8.0 and RM 9.25 and between river miles (RM) 13.0 and 14. Of the Bridge Creek tributaries within the CRMP area, Gable Creek and Bear Creek are the only ones which have had recent beaver activity.

In the last six years beaver activity has begun to form a pattern. In the Winters and Springs of 1988/89 and 1992/93 a combination of cold/snowy winters and heavy spring rains reduced beaver activity significantly. In the spring of 1989, the number of dams was reduced from 31 to 8, and there was a 67% decline in occupied habitat from 1.35 to 0.45 stream miles. In the spring of 1993, the number of dams was reduced from 99 to 26 and there was a 71% decline in occupied habitat from 3.04 to 0.88 stream miles. It is apparent that even with the periodic declines, beaver activity is increasing overall. Part of this increase is due to the closing of the Bridge Creek watershed to beaver trapping in 1989. Another factor is the increasing amount of high quality riparian habitat available to support beaver populations. In 1989 and 1993 high flows in the spring washed out the majority of dams. In the late summer and fall new dams were built, but in different locations. Consequently, most of the habitat that had been heavily used during the previous years was abandoned and allowed to recover. Bars created when dams were breached became excellent sites for willow colonization. By 1991, areas that had been abandoned in 1989 were dense with new stands of willow and other woody riparian vegetation. At this time beavers began to reoccupy the sites. After the 1993 high flows some these sites were again abandoned.

In spite of the general recovery promoted by beavers a conflict has arisen. The exotic tree Russian olive (*Elaeagnus angustifolia*) was planted many years ago in the vicinity of what is now the Painted Hills unit of the John Day Fossil Beds National Monument. The tree has begun to increase rapidly from the park downstream. The spread has been promoted by beavers which prefer eating native woody vegetation. As the beavers cut willows they release seedling Russian olives which grow rapidly, shading the area thus reducing or eliminating willows and other native vegetation. In some areas where beavers have cut much of the willow and cottonwood, the riparian community is now dominated by Russian olives. Between 1988 and 1992 Russian olives were rarely cut by beavers. However, in the fall of 1992, after cutting much of the native stock in some sites adjacent to the park, beavers finally began cutting Russian olive. It is not known to what extent this new beaver behavior will mitigate the spread of Russian olive.

11. Soils

The soils within the CRMP area are complex and diverse. They were mapped in the Gable Creek Allotment during 1988. There are eleven different mapping units and ten soil series found in the allotment. A map and description of the soils can be found in the Gable Creek CRMP (dated June, 1989).

Soils found in the Gable Creek drainage are found over the whole Sutton Mountain area. Many of the soils are severely erodible for a number of factors. Alluvial soils, found along the creeks, are very productive, but some of the clay soils are less so. Where gradients are steep, erosion and downcutting can be significant. This is especially true with the very shaly loam Venator Soil Series, which is located on the steep slopes along Nelson, Weddle and Gable Creeks. These slopes can produce large amounts of sediment, during periods of high precipitation, that may cover riparian vegetation to a depth of a foot or more. In the upland areas where gradients are less steep, soils like Courtrock, Hack and Tub are less erosive and more productive.

12. Special Status Species

a. Plants

Significant areas of native flora exist in the Sutton Mountain CRMP area which exhibit native plant communities common to the area. These communities are of interest and value as "remnant" plant communities (see below), but none are known to contain species endemic to Sutton Mountain alone; however, there are two species which are endemic to east-central Oregon and are also Federal Candidates (Category 2) for listing as endangered or threatened - arrowleaf thelypody and Washington monkeyflower. Three other species (pallid milkweed, Nevius' chaenactis and hedgehog cactus) occur which, although they have no special status, are of interest to the botanical community.

Arrowleaf thelypody (*Thelypodium eucosmum*) It is a biennial and a member of the mustard family. This plant is found in several locations in Grant and Wheeler counties. Its habitat is characterized by steep basaltic drainages which are usually wet for part of the year. These may include streambanks, either open or shaded, vernally-moist alkaline areas and moist areas under juniper trees. Known populations in the CRMP area occupy habitat as described above, such as at the base of springs along basalt rimrock and in steep drainages.

The thelypody normally begins growth in May, flowers by June and may produce mature fruit by July. Populations often consist of a number of flowering plants and an equal or greater number of plants in rosette. Dormancy usually occurs by September.

Threats to the thelypody include grazing (both wild and domestic), erosion and insect predation. The genus as a whole is known to be palatable to livestock and grazing during flowering or fruiting can be detrimental. Limited observation of populations grazed in the fall shows no decrease in numbers of plants, but grazing is believed to have been the major cause of local extirpation along riparian areas. (Historical records indicate this plant once occurred along the John Day River). Some known populations are from areas which historically have been heavily grazed during the early spring. However, livestock grazing can also promote the growth of weedy species which can compete with the thelypody. Due to its location in areas which traditionally attract livestock, grazing is potentially the thelypody's greatest threat.

Aside from continual disturbance to a population, as would occur under certain grazing regimes, the thelypody appears to at least tolerate, if not enjoy, periodic natural disturbance, such as bank sloughing or tree blowdown which exposes bare soil. Low intensity fire would probably not be detrimental to thelypodium. Higher intensity fire would most likely result in significant mortality and also open up the area to weed invasion.

Washington monkeyflower (*Mimulus washingtonensis* var. *washingtonensis*) It is a diminutive annual related to the common monkeyflower (*M. guttatus*) and is endemic to the John Day drainage in Grant and Wheeler counties. It is found in wet areas such as at springs, seeps, along gravelly creek banks and in vernally wet drainages, often in association with arrowleaf thelypody. As an annual, monkeyflower populations are extremely variable and responsive to annual precipitation patterns. Large populations one year may be non-existent above ground the following year, represented solely by the seed bank.

The Washington monkeyflower occupies much of the same habitat as the arrowleaf thelypody and the two are often found in association. However, monkeyflower habitat includes additional areas which are not suitable for the thelypody. As a result, there are many more known populations of the monkeyflower in the CRMP area than the thelypody.

Threats to the monkeyflower include trampling by livestock and any mechanical practice which would alter site hydrology. While the monkeyflower is not directly consumed by grazers, the habitat is normally fragile and subject to excessive trampling. Grazing year after year would eliminate the seed source and eventually lead to local extirpation. Additionally, grazing could assist in the introduction of alien weeds which would compete with the monkeyflower. Even its relative, the common monkeyflower, proliferates under livestock grazing and can tend to out compete its smaller cousin. May through August is the time this species is most sensitive to grazing use. Fire is probably neither a threat nor a benefit.

Pallid milkweed (*Asclepias cryptoceras*) It is a perennial which is found in heavy clay and gravelly soils, and occurs in many of the western states as well as in Central Oregon. Although not threatened or endangered, it is uncommon and therefore is considered a tracking species by BLM.

Due to its preference for often steep, sparsely vegetated soils, there are few, if any threats to this species. Livestock grazing would not normally be a concern since the plants occur in areas seldom grazed. Recreational activities, particularly off-highway vehicle use, would be detrimental if such use would occur directly in pallid milkweed habitat.

John Day chaenactis *(Chaenactis nevii)* This plant is an annual and a member of the Sunflower family which is endemic to the John Day Formation of Central Oregon. The usually barren clay slopes of this formation become ablaze with the yellow chaenactis during seasons of good precipitation. This, the only yellow chaenactis in Oregon, is a BLM tracking species.

As with the pallid milkweed, there are few threats to the chaenactis. Grazing does not normally occur in its habitat. Recreation is perhaps the greatest threat as people look at the steep slopes of the John Day Formation as a challenge, either afoot or in a vehicle. Fire is not an issue.

Hedgehog cactus (*Pediocactus simpsonii* var. *robustior*) This is perhaps the species most commonly associated with the Sutton Mountain CRMP area. Found intermittently from eastern Washington south to Nevada, it is known in the Prineville District from the John Day drainage on rocky ridges and in gravelly washes. Each year cactus and succulent societies come to Sutton Mountain to observe this hedgehog cactus, usually in mid- to late April.

The hedgehog cactus is considered a tracking species and has few present threats. Livestock grazing, if concentrated within a hedgehog cactus population, would result in destruction of plants through trampling. Fire has been observed to be detrimental to the cactus in the short term, although long term, the cactus has been observed to flourish. The cactus is sometimes collected by landscapers, gardeners and others and on occasion, commercial collectors have taken plants as well. Collection is not yet a threat as most populations are relatively inaccessible.

As previously mentioned, the Sutton Mountain CRMP area contains native, "remnant" plant communities. A 1989 report, by The Nature Conservancy, recommends that 6,840 acres be designated as a Research Natural Area (RNA). Within this RNA there would be representation of seven cells, or plant communities, important to the Natural Heritage Program of Oregon. Of these seven found on Sutton Mountain, three are high priority cell needs not represented elsewhere in the state.

According to the report, these natural area values are concentrated in two areas: Black Canyon, with its relatively intact riparian area and population of arrowleaf thelypody, and the southwest face of the mountain, containing low sagebrush and grassland communities, as well as additional arrowleaf thelypody.

b. Animals

Lists of wildlife special status species are updated regularly to match new information from the ODF&W, USFWS and the Natural Heritage Data Base. A current list of special status species potentially within the area is shown in the Appendix L. Habitat needs for special status species has been considered in development of all planned actions.

In general, habitat needs of these species will be met by managing for improved ecological condition, which will be measured by diversity of vegetative species and diversity of vegetative structure.

There are three fish species of particular concern which are presently in the system. Two are trout (*Oncorhynchus mykiss*), the redband trout and the summer steelhead. The redband is currently listed as a Category 2 Species and the steelhead as a Species of Concern. The third is the Pacific lamprey (*Lampetra tridentat*) which is a Proposed Sensitive Species.

The special status wildlife species which are known to presently occur within the CRMP area are the western toad, Townsend's big-eared bat, Northern goshawk and the bald eagle.

The western toad is documented occurring on Bridge Creek. The species relies on riparian areas with diverse habitats for survival. Management of riparian habitat that promotes succession towards potential vegetation is optimal for this species. Townsend's big-eared bat occurs along Bridge Creek and the John Day River. Two habitat components are of particular concern. First, all roosts and hibernacula, when documented should be protected from disturbance. Second, since the bat is entirely dependent on insects for it's food source, management which increases insects would enhance the status of this species. This can be accomplished by improvement of riparian diversity, including enhancing pools and areas with still water, and by application of herbicides/pesticides only when absolutely necessary.

The Northern goshawk is a winter migrant into the area and has been observed within the CRMP area. The species utilizes juniper and riparian habitats with tree canopies for hunting. Management which promotes mature juniper woodlands in mix with diverse non-woodlands and promotes multilayered riparian tree/shrub communities will enhance goshawk habitat. The bald eagle is a winter migrant into the area. Use of the Sutton Mountain area is irregular, with no consistent use of any area documented. Management for this species would be enhanced by improvement of roosting areas, particularly development of mature cottonwood stands, and improvement of food sources.

13. **Vegetation**

a. Vegetation Types The dominate vegetation types are sagebrush/bunchgrass and juniper/sagebrush/bunchgrass. A variety of other types occur in the area, but their actual classification and number of acres is not known. Information on types is known for the original 16,500 acres of public land based on a 1967 Ocular Reconnaissance Range Survey.

b. Ecological Status The status is based on the relationship between existing plant composition on a given site and the composition of that site in a pristine state. Vegetation is listed as potential natural community (PNC), late seral, mid-seral or early seral status. The acres of public land, for the original 16,500, are listed by allotment and seral stage in the draft Two Rivers RMP/EIS, dated 1985.

14. **Visual Resources**

The CRMP area contains numerous lands of high visual quality. Many places contain sheer, basalt cliffs, pillars, escarpments and other dramatic geological formations. The Painted Hills Unit of the John Day Fossil Beds National Monument adds to the visual quality and diversity of the area along Bridge Creek. The Clarno and John Day Formations present beautiful colored patterns which change with the light throughout the day.

Areas of high scenic quality exist from basically Bridge Creek to Clark Canyon and south of the Painted Hills National Monument to Sand and Sargent Butts. (See Map G, Visual Resources). For a definition of the Visual Management Classes, see Appendix K.

15. **Water**

a. Quantity The CRMP area is primarily drained by Bridge, Gable and Girds Creeks. Flows can vary greatly throughout the year.

b. Quality None of the streams meet the State water quality standards. High water temperatures are the primary water quality concern. Sedimentation can be high in Gable Creek where over a foot of sediment can accumulate along the banks in a single event. If frequent and large sediment accumulations occur during May through July, it can retard the growth of riparian vegetation by burying it. Excessive accumulations can cover spawning gravels to a point were they are not usable.

16. **Wildlife Habitat**

Wildlife habitat is divided into aquatic, riparian, upland and agricultural habitat types. Aquatic and riparian habitat conditions were described near the beginning of Part V. A complete list of wildlife species and habitat types they are normally associated with is contained in the Two Rivers RMP.

Upland habitats are dominated by two structural types, grass/shrub and juniper/shrub/grass, with the overall vegetative diversity of those types critical to wildlife use. Dominant grasses are bluebunch wheatgrass, Idaho fescue, sand dropseed, bluegrass and cheatgrass. Dominant shrubs are sagebrush (wyoming and mountain) and the dominant tree is western juniper. One other upland habitat type that represents a small percentage of the total acreage (< 1%) but is an important component is the snowberry/ponderosa pine community occurring primarily on top of Sutton Mountain. This vegetation type occurs only in the bottoms of canyons adjacent to riparian areas.

Overall, habitat is in fair condition with a good mix of vegetative and structural diversity, although there are also representative areas that exhibit either poor or excellent habitat diversity. The areas most limiting are lower elevation areas along water courses. They are limiting primarily due to the lack of an understory with herbaceous diversity and structure, with the limited forb component being most limiting. While this is due in large part to soils and moisture, it is also a result of past livestock use. As you get further from water and into steeper slopes overall herbaceous conditions improve significantly.

Present trends indicate an increase in plant diversity and structure in the herbaceous understory, particularly in the lower elevation areas. This is a result of livestock changes since the exchange was completed which have reduced total use, changed the kind of livestock from cattle to sheep on portions of the area and changed seasons-of-use to be more compatible with physiological needs of the plants.

B. Resource Activities and Land Uses

1. Access

Numerous roads and four-wheel drive trails exist in the area. Several of these have been closed by means of an emergency road closure action published in the Federal Register. This action was taken to protect certain resource values, such as paleontology and highly erosive soils, from damage which may result from vehicle use. The closures have limited access to portions of the CRMP area by limiting people's ability to drive into certain areas.

2. Livestock Grazing

The CRMP area contains eight grazing allotments which are listed in Table 38 on the following page. Also listed is the allotment number, present authorized number of AUMs, acres of public land and grazing system. Presently all the grazing allotments are being managed on a yearly interim basis pending the completion of this CRMP.

Table 38
Sutton Mountain CRMP
Present Grazing Status

Allotment Name	Allotment Number	Public Land Acres	Authorized AUMs	Grazing System 1/
Carroll Rim	02590	2,572	101	Sp, R
Circle Bar 2/	02531	19,708	930	Sp/W, R
Crown Rock	02609	4,241	110	Sp, R
Dead Dog Canyon	02537	4,296	398	Sp
Gable Creek	02516	5,025	210	Sp, R
Girds Creek	02561	692	61	Sp/S, Cust.
Mary Misener	02592	1,268	76	Sp, R
Packsaddle Mountain	02659	590	28	Sp/S, Cust.
Sutton Mountain	02533	24,905	1,252	Sp, R
TOTALS		63,297	3,166	

1/ Grazing Systems: Sp - spring; S - summer; W - winter; R - rotation; Cust. - custodial

2/ The level of grazing use in the 92 Pasture is controlled by a stipulation to the agricultural lease which requires utilization levels not to exceed a three inch stubble height on grasses and a four inch height after November 1.

Part VI. Environmental Impacts by Alternative

A. Items of No Impact

The following items were considered, but will not be addressed because they would either not be affected or would not effect other resources. Any future actions, that may affect these resources and land use activities, would be analyzed in a separate environmental assessments.

Items of No Impact

Air Quality
Flood Plains
Hazardous Materials
Leasable Minerals
Native American Religious Concerns
Native American Traditional Interests
Solid Waste
Unique Agricultural Land and Wetlands.

B. Resources

This part of the Environmental Assessment describes the impacts to the affected environment that would result from implementing the different proposed management alternatives and "Management Common to All Alternatives". Alternative C, the Existing Situation, is described first as a basis for comparison to the other alternatives and management actions which would be common to all the alternatives.

1. Impacts to Cultural and Historical Resources

Access Proposals

Alternative C - Existing Situation: The existing road closures have reduced the amount of vehicle access to or near cultural sites which may have minimized vandalism.

Alternative A: With all roads open to the public, vehicle access to many cultural sites would be possible. This may increase the opportunities for vandalism to the sites.

Alternative B: The same as Alternative A.

Alternative D: The same as Alternative C, except the road to Spring Canyon would be closed for public access approximately 0.5 miles from the end. This would eliminate vehicle access to a known cultural site. The road is located in T.10S., R.20E., Sec. 24, and T.10S., R.21E., Secs. 19 and 18.

Alternative E: The same as Alternative D.

Livestock Grazing Proposals

Alternative C - Existing Situation: Impacts from sheep camps on known cultural resources have not been identified at this time.

Alternatives A, B and D:

Gable Creek, Circle Bar and Sutton Mountain Allotments (Sheep and Sheep/Cattle Option) Sheep camps would be located so that cultural resources are not affected. The Resource Area Archeologist would be part of the location process.

2. Impacts to Fish and Aquatic Habitat Resources

Access Proposals

Alternative C - Existing Situation: The limited vehicle use of the stream crossing on Gable, Bear and Bridge Creeks has helped reduce water turbidity.

Alternative A: Vehicle use would cause a high level of soil erosion from the steeper gradient roads during wet periods. Roads close to Gable, Bridge and Nelson Creeks would increase the turbidity level in these creeks. This would reduce the egg and juvenile survivability of the summer steelhead. Also, there would be an increased mortality of macroinvertebrates and amphibians.

Some of the additional sediment would be trapped by the riparian vegetation and increase the rate of bank building.

Alternative B: The same as Alternative A, except the level of turbidity would be reduced by eliminating vehicle use on roads during the wet periods.

Alternative D and E: The two complete closures (both public and administrative) on Gable Creek and one on Mud Creek would further lower turbidity in these creeks and Bridge Creek. The complete closure and rehabilitation of the Nelson Creek Road would also help.

Noxious Weed Proposals

Alternative C - Existing Situation: Knapweeds and Yellow Star Thistle would continue to replace some of the desirable riparian grasses along perennial streams.

The plowing and seeding treatments on 45 acres of the 92 Acre Field may result in a slight sediment increase in Bridge Creek during the months of March, April and May. This would only occur if a peak rainfall event occurs.

Management Common to All Alternatives: Yellow Star Thistle would be controlled in the main infestation areas as shown on Map H. This would improve the vegetation diversity along Bridge, Gable and Mud Creeks and allow woody riparian species to establish. As a result, water temperatures would lower and streambanks would stabilize.

Wilderness Study Area Proposals

Management Common to All Alternatives: Western Juniper would invade unoccupied areas over time. As this occurs, it may reduce water flow to Bridge Creek. Soil erosion may increase resulting in additional sedimentation to Bridge Creek. This could reduce the egg and juvenile survivability of summer steelhead. Also, there would be an increased mortality of macroinvertebrates and amphibians.

Some of the additional sediment would be trapped by riparian vegetation and increase the rate of bank building.

Upland Vegetation Manipulation Proposals

Alternative C - Existing Situation: The yellow starthistle and knapweed in areas 7, 8, 10, 11 and 12, shown on Table 5, would continue to invade the riparian areas along Bear, Bridge and the John Day River. This would reduce the amount of desirable riparian vegetation which would then cause increased water temperatures, particularly in Bear and Bridge Creeks.

Alternative A: The proposed treatments of areas 5, 8, 10, 11, shown on Table 5, would slightly increase the turbidity of Bridge Creek during the first spring following treatment. Proposed treatments of areas 7 on Bear Creek and area 12 on the John Day River are not expected to contribute to increased turbidity levels during the first year. The seedings would stabilize the soils within six to eight months after planting. They should also reduce the amount of yellow starthistle and knapweed moving from the treated areas into the adjacent riparian zones.

Alternatives B, D and E: The same as Alternative A.

Water Rights and Agricultural Lands Proposals

Alternative C - Existing Situation: The irrigation stipulation for the three leased agricultural fields helps protect the aquatic environment by providing water during periods of low flow.

Management Common to All Alternatives: The continued *control and validation* of the BLM's water rights would help insure a minimum flow for summer steelhead survivability and good aquatic habitat condition. Also, the *Bridge Creek Water Use Stipulation* would help provide water for summer steelhead and a healthy aquatic habitat during periods when flows fall below 10 c.f.s., based on flow information from the US Geological Survey gauging station at the lower end of Bridge Creek.

The *Native Hardwoods Supplementation Project*, along the John Day River, would provide a source of native trees for riparian plantings in areas lacking woody riparian vegetation. This would aide aquatic habitat improvements in the John Day Basin.

The *Noxious Weed Control Requirement*, for the agricultural fields along Bridge Creek, would help reduce the total amount of noxious weed seed being transported to riparian areas further down the drainage.

Alternative A: Fields leased for cultivation would increase the sedimentation levels in Bridge Creek during high precipitation events in the fall and winter.

The ditch irrigated systems, except for the 92 Acre and Eighteen Acre Fields, could increase the amount of sediment, fertilizer and herbicide to Bridge Creek if over irrigation occurs.

Alternative B: The same as Alternative A, except the level of turbidity and fertilizers contributed to Bridge Creek would be less because only six of the twelve fields would be leased for irrigated crop production.

Livestock Grazing Proposals

Alternative C - Existing Situation:

Circle Bar Allotment Regardless of the kind of livestock used, there would be impacts to the aquatic habitat along 5.3 miles of Bridge Creek. The watering of sheep along Bridge Creek would cause higher levels of sedimentation during the spring and fall use periods. The disturbance is caused by the animals hooves as they walk over exposed or thinly grassed soils. An undetermined amount of soil would either be knocked directly into the creek or disturbed to the degree that a heavy precipitation event would wash soil in the creek. An increased fine sediment load would suffocate redds and alevins during the spring and effect juveniles during the fall and winter by irritating their gill membranes. Also, water temperatures would increase and pools, needed by summer steelhead for resting, would be filled with sediment. Temperatures greater then 75 °F would kill alevins, juveniles and adults. Higher sediment loads, without an increase in the amount of riparian vegetation, could decrease the streams width to depth ratio. This would increase the water surface area and result in higher water temperatures.

The same impacts described above would result from cattle grazing during the hot summer months (July and August). In addition, both the riparian woody vegetation would be heavily grazed and it's ability to shade the stream and trap sediments would be eliminated. This would result in the elevation of water temperatures above 75 °F and increased sedimentation levels, causing summer steelhead mortality.

These impacts would reduce populations of macroinvertebrates which are the food source for alevins and summer steelhead juveniles during the entire year. Also, the amphibian population would suffer increased mortality.

Crown Rock Allotment The impacts as describe under the Circle Bar Allotment would occur, but to a lesser degree during the spring grazing period along 2.5 miles of Bear Creek.

Dead Dog Allotment An undetermined amount of sediment would be added to the John Day River along 1.6 miles of river. This would be the result of hoof action from cattle along the upper banks. As a result of early season grazing, the amount of additional sediment should be low because cattle would spend more time grazing in the uplands than the alluvial flats. Increased sediment loads in the John Day River would hinder adult and smolt migration and reduce food (macroinvertebrates) availability.

Gable Creek Allotment The use of Gable, Nelson and Mud Creeks for watering sheep would result in similar impacts described in the Circle Bar Allotment during the spring use period. Grazing in the Weddle Creek drainage could add to the sediment load in Gable Creek during periods of high precipitation. Any increased sediment levels in Gable Creek would flow into Bridge Creek at the upper end of the Circle Bar Allotment.

Sutton Mountain Allotment During the month of April cattle have access to 5.5 miles of Bridge Creek and 3.5 miles of the John Day River. This causes similar impacts as described in the Circle Bar Allotment for cattle use; however, due to an earlier grazing period, very little utilization occurs on the woody riparian vegetation by livestock.

Cattle have access to Bridge Creek because the fences are down at several locations, but once along the creek, the fences seem to act as a partial barrier and hold animals on the creek.

Management Common to All Alternatives:

Sutton Mountain Allotment The *Manning Exclosure and Unsworth Field* would continue to allow the existing and planted riparian woody vegetation, along one mile of Bridge Creek, to grow at a maximum rate. The result would be increased shading along the creek and lower water temperatures. There would be an increase in nonwoody riparian vegetation which would help filter out sediments to provide cleaner water and reduce fish mortality.

The *Knapweed Pasture* would produce the same benefits on 0.76 miles of Bridge Creek as described above; however, it is grazed for two weeks each spring as part of a knapweed control research study by Oregon State University.

The *Lower Owens Field* would produce the same benefits as the Manning Exclosure and Unsworth Field on 0.9 miles of Bridge Creek.

The *Agate Point Pasture* would allow riparian vegetation along 2.0 miles of the John Day River to increase at a maximum rate. This would help stabilize the bank area and slightly reduce the amount of sediment reaching the John Day.

The *Girds Creek Pasture* would allow the existing riparian vegetation to increase at a maximum rate. The functioning of the channel would improve and may be reestablished as a spawning and rearing stream for summer steelhead. Also, an increased quantity of improved quality water would flow in to the John Day River.

Alternative A:

Circle Bar Allotment - Sheep and Cattle/Sheep Options The growth rates and shade producing potentials of the woody riparian vegetation would be near maximum for this portion of Bridge Creek. An increase in both woody and herbaceous riparian vegetation would stabilize banks and trap sediments which would narrow and deepen the channel. This would decreased water temperatures and sedimentation levels of the creek. In addition, the macroinvertebrate population would increase. These effects would improve the survivability of redds and alevins.

The improved functioning of the riparian system would increase it's water storing capabilities and result in higher flows during the late season - August, September and October.

Crown Rock Allotment The Bear Creek Riparian Pasture would allow all riparian vegetation, along 2.5 miles of Bear Creek, to grow at a maximum rate. The impacts described above, under the Circle Bar Allotment, would result.

Dead Dog Allotment A slight decrease in sedimentation of the John Day River would occur along 1.6 miles of the river. Also, there may be a slight improvement of the condition of the riparian vegetation, although this is in doubt because of the private land in this area which is grazed frequently from late summer through the winter. This results in heavy use of both the herbaceous and woody riparian vegetation. There is no control over the private land because it is not part of the allotment.

Gable Creek Allotment - Sheep Option The same impacts as described above in the Circle Bar Allotment would occur on Gable, Bridge and Nelson Creeks. Mud Creek would obtain the same degree of improvement.

Gable Creek Allotment - Cattle Option A low level of utilization would occur on the riparian vegetation if herding is done aggressively. This may be difficult because of the different creeks with critical riparian zones in a relatively small area. In addition, slopes adjacent to the creeks are generally steep with highly erosive soils - very gravelly and very shaly loams - Donning and Venator Soil Series. Even a low level of livestock trailing across these slopes may result in higher sediment levels in the creeks.

Grazing in the Weddle Creek drainage has the potential to add measurable sediment loads to Gable Creek. This could occur when precipitation is high enough to cause water to flow in Weddle Creek. Any increased sediment levels in Gable Creek would flow into Bridge Creek at the upper end of the Circle Bar Allotment.

Girds Creek Allotment The Girds Creek Riparian Pasture would allow the riparian vegetation to increase at a maximum rate. This may improve the functioning of Girds Creek, but a change in the type of road maintenance work being done is needed. Every couple of years gravel from the creek are pushed up alongside the road by heavy equipment, to protect the road from high spring flows. This action destroys some of the riparian vegetation and increases the water velocity.

Sutton Mountain Allotment - Cattle Option The Bridge Creek Riparian Pasture would allow the riparian vegetation, along 3.2 miles of Bridge Creek, to increase at a maximum rate. The impacts would be the same as those described for Bear Creek in the Crown Rock Allotment under this alternative. In addition, increased water quality and late season flows would go directly into the John Day River.

Cattle use in the River Pasture from March 15 to March 20 would cause only a slight increase in sediments to the John Day River because of any streambank disturbances. Cattle would have access to 2.4 miles of river, but because of the time of year and short use period, cattle would graze mostly in the uplands.

Sutton Mountain Allotment - Sheep/Cattle Option On 3.2 miles of Bridge Creek and 2.4 miles of the John Day River a small increase in sedimentation would be expected every other year from April 24 to May 15. This impact should be minor because no more then 60 cows would be present at one time. These animals would have 7,463 acres available for grazing at a time-of-year when they would be predisposed to the uplands. Additional impacts to the aquatic habitat would be the same as those described in the Circle Bar Allotment for this alternative.

Alternative B:

Circle Bar Allotment - Cattle/Sheep Option A low level of utilization would occur on the riparian vegetation if aggressive cattle herding can be maintained. The animals would mostly use the upland slopes where some fall growth of the bunchgrass occurs. Also, cold air concentrating in Bridge Creek and Meyers Canyon would discourage livestock use.

A slight increase in sedimentation to Bridge Creek would occur along 5.3 miles because of livestock hoof action.

Circle Bar Allotment - Sheep Option The aquatic environment should improve at near maximum rate due to the low level of sheep use in riparian zones. Also, two-thirds of the grazing use would occur during the winter when cold air concentrates in canyon bottoms and discourages livestock use in low areas.

Gable Creek Allotment - Sheep Option The improvement rate of the aquatic environment for Bridge, Gable, Nelson and Mud Creeks, may be slightly faster then described in Alternative A (Sheep Option). This would result from a lower level of livestock use.

Gable Creek Allotment - Cattle Option The improvement rate of the aquatic environment for Bridge, Gable, Nelson and Mud Creeks, would be slightly faster then described in Alternative A (Cattle Option).

Crown Rock, Dead Dog Canyon, Girds Creek and Sutton Mountain Allotments both Cattle and Sheep/Cattle Options The same as described in Alternative A for each of these allotments and options.

Alternative D:

Circle Bar Allotment - Cattle/Sheep Option The aquatic environment on 5.3 miles of Bridge Creek would improve at a slightly faster rate then in Alternative B. This would be the result of a lower level of livestock use.

Circle Bar Allotment - Sheep Option The aquatic environment on 5.3 miles of Bridge Creek would improve at a slightly faster rate then in Alternative B.

Circle Bar Allotment - Cattle Option The aquatic environment would improve at a faster rate then Alternatives A and B due to the low level of cattle use, herding and complete rest from grazing every other year.

Gable Creek Allotment - Sheep Option The improvement rate of the aquatic environment for Bridge, Gable, Nelson and Mud Creeks, would be faster then in Alternatives A and B. This would result from a reduced level of livestock use in the riparian zones (no greater then 10% use at any one location). Also, by not grazing the Weddle Creek drainage, the potential for sediments flowing into Gable Creek would be reduced.

Crown Rock, Dead Dog Canyon, Girds Creek and Sutton Mountain Allotments both Cattle and Sheep/Cattle Options The same as described in Alternative A for each of these allotments and options.

Alternative E: The aquatic environments on all the allotments in the CRMP area would improve at a maximum rate. The one exception would be the Dead Dog Canyon Allotment, where the impacts would be the same as described under Alternative A.

3. Impacts to Noxious Weed Infestations

Access Proposals

Alternative C - Existing Situation: Noxious weed seed would be transported by vehicles along roads open to the public, but to a much lesser degree on roads open to administrative uses only.

Alternatives A and B: Noxious weed seed would be transported by vehicles along all the existing roads and ways.

Alternatives D and E: The spread of noxious weeds by vehicles would be reduced to the lowest level. The permanent closure and revegetation of 5.1 miles of existing roads would hinder the spread of noxious weeds.

Upland Vegetation Manipulation Proposals

Alternative C - Existing Situation: The eleven treatment areas listed on Table 6, Alternative A, would continue in an early seral condition. Various noxious weeds, annual grasses and herbs would continue to occupy the sites with the potential of spreading to adjacent areas which are in mid to late seral condition.

Alternative A: The mixture of noxious weeds, annual grasses and herbs would be replaced by a desirable mixture of native and introduced grasses, herbs and shrub species listed in Table 6 under Alternative A. This action would help to control and reduce the rate of spread of noxious weeds on 2,102 acres. This action would be accomplished within approximately five years.

Alternative B: The impacts would be the same as described under Alternative A except the action would be completed within approximately ten years.

Alternative D: The mixture of noxious weeds, annual grasses and herbs, on 1,503 acres, would be replaced by a desirable mixture of native grasses, herbs and shrubs as listed in Table 25, Alternative D. This would reduce how fast noxious weeds spread to adjacent areas. The treatments would be accomplished within approximately five years.

Alternative E: The same impacts would occur as described in Alternative D.

Livestock Grazing Proposals

Alternative C - Existing Situation: An undetermined amount of noxious weed seed would be spread by sheep during the fall use period in the Circle Bar Allotment.

Alternatives A, B and D: An undetermined amount of noxious weed seed would be spread by sheep during the fall use period in the Circle Bar (Cattle/Sheep and Sheep Options) and the Sutton Mountain (Sheep/Cattle Option) Allotments.

4. Impacts to Paleontological Resources

Access Proposals

Alternative C - Existing Situation: The existing road closures have reduced the amount of vehicle access to known fossil locations. This may have minimized vandalism to these sites.

Alternatives A and B: With all roads open to the public, opportunities for vandalism of fossil beds may be greater then Alternatives C, D and E.

Alternatives D and E: The restricted access to public lands by vehicles would help to protect fossil locations from vandalism.

Livestock Grazing Proposals

Alternatives A, B, C and D - Circle Bar Allotment, and Alternatives A, B and D - Sutton Mountain Allotment, Sheep/Cattle Option: If sheep are inadvertently trailed across fossil locations, the exposure of buried fossils would increase.

5. Impacts to Riparian and Wetland Resources

Access Proposals

Alternative C - Existing Situation: Refer to the impacts described under Fish and Aquatic Habitat Resources, Access Proposals, in Alternative C.

Water Rights and Agricultural Lands Proposals

All Alternatives: Refer to the impacts described under the Fish and Aquatic Habitat Resources.

Livestock Grazing Proposals

Impacts described under Fish and Aquatic Habitat Resources address the effects of livestock grazing on stream and river riparian zones. The following analysis addresses the impacts on riparian areas at springs and along intermittent streams that support some type of riparian area.

Alternative C - Existing Situation:

Circle Bar Allotment Repeated use of riparian vegetation at the 70% to 90% level would occur, causing low species diversity, poor condition and eliminate structure. The major spring areas affected are the following:

Name	Location
Bones Spring	T.11 S.,R.21 E.,Sec. 9, SE¼SE¼
Fossil Tooth Spring	T.11 S.,R.21 E.,Sec. 4, SW¼SW¼
1870 Cabin Spring	T.11 S.,R.21 E.,Sec. 12, NE¼NW¼
Refrigerator Spring	T.11 S.,R.21 E.,Sec. 26, SW¼NW¼
Stage Stop Spring	T.11 S.,R.21 E.,Sec. 15, NE¼NE¼

The riparian area in Meyers Canyon would be severely utilized - greater then 80%.

Crown Rock Allotment Cattle would easily access White Clay and Two-Way Springs (located in T.10 S.,R.20 E.,Sec. 35, NW¼SE¼, and T.11 S.,R.20 E.,Sec. 12, SW¼NW¼, respectively). Heavy use would occur on riparian areas, causing low species diversity, poor condition and eliminate structure.

Mary Misener Allotment Heavy utilization (61% to 80%), by cattle, would continue around Chapman Spring. This would perpetuate the low species diversity and poor condition.

Sutton Mountain Allotment - Cattle A majority of the riparian areas, associated with springs, would receive heavy to severe utilization (61 to 100%) each year by livestock, except for steep rocky areas.

Alluvial areas in the Agate Point Pasture would receive heavy to severe use (61 to 100%) each year.

Alternative A:

Circle Bar Allotment - Cattle/Sheep and Sheep Options The low level of use (350 AUMs) during the critical growing period, spread over 21,000 acres, would have little effect on the riparian vegetation at the spring areas.

Dead Dog Canyon Allotment The riparian vegetation would reach full potential unaffected by livestock grazing because of the protective fences constructed around each spring development.

Gable Creek Allotment - Cattle and Sheep Options Riparian vegetation at the unfenced springs would sustain root damage.

Girds Creek Allotment The riparian vegetation at the spring areas in the Girds Creek Riparian Pasture would improve at a maximum rate unaffected by livestock.

Sutton Mountain Allotment - Cattle Option The riparian vegetation, at those springs listed on Table 42 of the Appendix, would reach full potential unaffected by livestock grazing.

River, Coyote Canyon and Stovepipe Springs Pastures At the proposed level of livestock use and with the proposed grazing system, the impacts to riparian vegetation on the unfenced springs is expected to be heavy.

Sutton Mountain Pasture Utilization levels of riparian vegetation are expected to be moderate to high at all the spring sites except for the smaller and more remote ones.

All vegetation in the Bridge Creek Riparian and Agate Point Pastures would eventually reach full potential.

Sutton Mountain Allotment - Sheep/Cattle Option

Sheep use during the spring period would have minimal effect on riparian vegetation at spring locations due to extremely light stocking levels. Approximately 800 sheep using 473 AUMs in three use areas (totaling 25,000 acres) is very light use. This amount is only 33% of the total use allowed for the allotment.

Fall sheep use would have a moderate effect on riparian vegetation around unfenced springs due to root damage from compaction.

Spring cattle use in the Stovepipe Springs Pasture would have no effect on riparian vegetation at spring locations since the larger springs would be fenced. The smaller unfenced springs would receive light use because only 43 AUMs of cattle use would be allowed in this pasture.

Alternative B:

Circle Bar (Cattle/Sheep and Sheep Options), Crown Rock, Dead Dog Canyon, Gable Creek (Cattle and Sheep Options) and Sutton Mountain (Cattle and Sheep/Cattle Options) Allotments Condition of the riparian vegetation may improve at unfenced springs. The rate of improvement should be slightly faster then Alternative A because of reduced livestock use levels and time periods.

Alternative D:

Circle Bar (Cattle/Sheep and Sheep Options), Crown Rock, Dead Dog Canyon, Gable Creek (Cattle and Sheep Options) and Sutton Mountain (Cattle and Sheep/Cattle Options) Allotments Condition of the riparian vegetation may improve at unfenced springs faster then Alternative B. These allotments and options would be grazed at very reduced AUM levels and seasons of use.

Dead Dog Canyon Allotment The three consecutive years of complete rest from livestock grazing would allow for rapid improvement of the riparian vegetation, particularly woody species.

Sutton Mountain Allotment Riparian vegetation in the Sutton Mountain Pasture would reach full potential at a maximum rate unaffected by livestock grazing.

Alternative E: Riparian vegetation at spring sites would improve unaffected each year by livestock grazing.

6. Impacts to Soil Resources

Access Proposals

Alternative C - Existing Situation: Excessive soil erosion occurs during the wetter periods of the year because of vehicle use on roads to Priest Hole and Spring Canyon. Some erosion may occur from the roads leading to the view points overlooking the John Day River since they are steep and not usable when extremely wet.

Alternative A: The amount of soil erosion would increase greatly with use during wet periods on roads greater then five percent grade. Erosion rates would be highest in the Gable Creek area and the road to the top of Sutton Mountain from Girds Creek.

Alternative B: Less soil erosion, due to vehicle use, would occur then in Alternative A. Excessive soil movement may occur due to vehicles using roads to Priest Hole and Spring Canyon during wet periods.

Alternatives D and E: The least amount of soil loss, due to vehicle use, would occur. The complete closure of 2.8 miles of dirt roads and the rehabilitation of 5.1 miles would stop soil movement on 7.9 miles in two to three years.

Noxious Weed Proposals

Alternative C - Existing Situation: Some very limited soil compaction occurs on areas presently being treated as a result of driving a half ton pickup truck with spray equipment across fields. The historic treatment areas involve less then 300 acres. If the treatment areas are expanded, pending the results of Prineville District's Noxious Weed EA, some additional soil compaction would occur with negligible adverse impacts.

Visual Resource Management Proposals

Alternatives D and E: Removal and burying of the power line would increase soil erosion and compaction for approximately eleven miles along the east side of the Bridge Creek County Road. The effects would be minor and would last up to a year.

Upland Vegetation Manipulation Proposals

Alternatives A and B: If all areas, except Area H, are seeded by means of a rangeland drill, an undermined amount of soil movement would occur on 1,142 acres during the first year until the seeded species become establishment. The amount of soil erosion would be small.

Alternatives D and E: The same as Alternatives A and B, except 1,084 acres would be treated.

Water Rights and Agricultural Land Proposals

Alternative A: Any fields not leased for agricultural use would be planted to the seeded species listed in Table 6. There may be an undetermined amount of soil loss during the winter and spring periods following any plowing or disking of the fields. If all fields were seeded during the same year, the amount of soil loss would be low due to the ten foot buffer strips adjacent to each riparian area.

Alternative B: The same as Alternative A, except a maximum of six fields, including the Unsworth field, or approximately 233 acres would be available for agricultural leasing.

Livestock Grazing Proposals

Alternative C - Existing Situation:

Circle Bar Allotment Heavy soil compaction would occur within about one-half mile of Bridge Creek and the lower half of Meyers Canyon due to concentrated cattle use during the summer months. Infiltration rates would also be significantly reduced.

Sutton Mountain Allotment Heavy soil compaction would occur within one-half to one-quarter mile of Bridge Creek and those portions alone the John Day River which are accessible to cattle. Other areas of compaction would be within a half mile around Stovepipe Springs and in Black Canyon. Infiltration rates would be significantly reduced on the heavily compacted areas.

Management Common to All Alternatives: The four exclusion areas contain approximately 1,655 acres where no soil compaction would occur due to livestock grazing. Infiltration rates should increase to their full potential.

Alternative A:

Circle Bar Allotment - Cattle/Sheep Option Impacts would be similar to Alternative C, above, for the winter cattle use period.

Dead Dog Canyon Allotment Soil compaction would occur in Dead Dog and Clark Canyons especially around the spring areas. The infiltration rate would be reduced and some slight amount of soil erosion would occur in the canyons.

Gable Creek Allotment - Cattle Option Cattle trailing across slopes of highly erosive soils and grazing the Weddle Creek drainage, would cause excessive erosion.

Gable Creek Allotment - Sheep Option Sheep trailing in the Weddle Creek drainage may increase the amount of soil erosive if the use is followed by heavy precipitation.

Sutton Mountain Allotment - Cattle Option High soil compaction, reduced water infiltration and some limited soil erosion would occur in the larger canyons of the Sutton Mountain Pasture due to concentrated cattle each year.

Alternative B:

Dead Dog Canyon Allotment The same impacts as described above in Alternative A, but to a lesser degree because of the reduced level of AUMs.

Gable Creek Allotment - Sheep Option The same impacts as described above in Alternative A, but to a lesser degree because of the reduced level of AUMs.

Alternative D:

Circle Bar Allotment - Cattle Option The amount of compaction would be less then Alternatives A, B and C due to the low level of livestock use. This would allow water infiltration to improve and reduce soil erosion.

Dead Dog Canyon Allotment Water infiltration would improve from the present condition in the canyon bottoms, especially Dead Dog and Clark Canyons.

Sutton Mountain Allotment - Cattle and Sheep/Cattle Options Water infiltration and the level of soil erosion would improve to the full potential of the soils in the Sutton Mountain Pasture due to livestock exclusion.

Alternative E:

Water infiltration and the level of soil erosion would improve to the full potential of the soils on the CRMP areas.

Project Proposals

Alternatives A, B, D and E - All Options: Some very localized soil erosion and compaction would occur during installation of the cattleguards, spring developments and fence relocations. The total surface area disturbed would slightly greater under Alternatives A and B, Cattle Options. The construction of new fences would have a minimal and short duration effect.

7. Impacts to Special Status Species

a. Plants

Access Proposals

Alternative C - Existing Situation: Vehicle access would continue to areas of special status plants which may contribute to their decline.

Livestock Grazing Proposals

Alternative C - Existing Situation

Sutton Mountain Allotment Cattle grazing would continue to impact two populations of arrowleaf thelypody (population numbers 133 and 143).

b. Animals

Environmental effects of the proposed actions are covered under the Fish and Aquatic and Riparian Resources sections.

8. Impacts to Vegetation Resources

Access Proposals

Alternatives A and B: The opportunity and temptation to drive over unroaded areas would be greater then in Alternatives C, D and E. Off road vehicle traffic could destroy existing vegetation, but to what extent it is not possible to estimate.

Alternatives D and E: The 3.8 miles or 2.4 acres of existing ways, proposed for permanent closure, would revegetate naturally. The 5.1 miles or 4.3 acres, proposed for rehabilitation, would be seeded to mixture of desirable grasses, forbs and a shrub depending on the aspect. The seeding should establish within two years and change the ecological condition of these acres from early seral to mid seral.

Noxious Weed Proposals

Alternative C - Existing Situation Yellow starthistle, Russian Knapweed and Canada thistle are being controlled on approximately 300 acres. The treatment areas are located in the Horse Fields, Owens Fields and along the Bridge Creek County Road. The treated sites are being invaded by cheatgrass, foxtail barley and tumble mustard.

Alternatives A and B: Yearly funding levels would determine the number of acres treated for noxious weeds. The acres treated and subsequently seeded would have a greater species diversity and a more desirable seral condition -- from early to mid. All seeded species would be indigenous to the northwest.

Alternative D: The same as Alternatives A and B, but a lesser number of acres would be treated.

Upland Vegetation Manipulation Proposals

Alternative A: The early seral condition on 2,102 acres would be changed to a mid or late seral within about seven years. The diversity of plant species would increase by changing from a few annual type species to a larger number of perennial.

Alternative B: The same as Alternative A, except the expected change in seral condition would take 12 years.

Alternatives D and E: The same as Alternative A, except treatment would occur on 1,084 acres.

Water Rights and Agricultural Land Proposals

Alternatives A and B: The 325 acres on the seven unleased agricultural fields, would be changed from a mix of annual grasses, forbs and noxious weeds to some kind of annual grain production. Noxious weeds would be controlled by the normal crop production process.

Alternative D: The existing vegetation of annual grasses, forbs and noxious weeds would be replaced on 32[illegible] acres with a desirable mix of native, perennial species.

Alternative E: The 813 acres on all 12 agricultural fields would be replaced with a mix of native, perennial species. The ecological condition class would change from early seral to mid seral and the species diversity would be increased.

Livestock Grazing Proposals

Alternative C - Existing Situation

Circle Bar Allotment Bluebunch, Thurber's needlegrass, sand dropseed and needle-and-thread would be utilized heavily (60 - 80%) within about two miles of Bridge Creek and a half-a-mile of Meyers Canyon. Also, heavy utilization would be expected within half-a-mile of the spring in T.11S., R.21E., Sec. 12, NE¼NW¼. Repeated heavy use over several years would cause elimination of these grasses.

Crown Rock Allotment Bluebunch, Thurber's needlegrass and sand dropseed would be utilized heavily (60 - 80%) within about one mile of Bear Creek. Repeated heavy use over several years would cause elimination of these desirable grasses.

Dead Dog Canyon Allotment The grasses in the bottom of Dead Dog and Clark Canyons would be utilized heavily (60 - 80%). Repeated heavy use over several years would cause elimination of these grasses.

Mary Misener Allotment Repeated use each year during the critical growing season may eliminate some of the remaining perennial grasses such as bluebunch and Thurber's needlegrass.

Packsaddle Allotment High utilization levels would occur on bluebunch, Thurber's needlegrass and sand dropseed, in the canyon bottom, due to repeated use during the same time each year. This may result in a downward trend and an increase in the areas of early seral condition.

Sutton Mountain Allotment Repeated use during the critical growing season and high utilization levels (60 - 80%), within about one mile of Bridge Creek and the John Day River, on bluebunch, Thurber's needlegrass and sand dropseed would cause elimination of these species. This would occur because Bridge Creek is the only livestock watering source for the lower areas in this allotment. In the Sutton Mountain Pasture, the bottom of Black Canyon, and the smaller canyons, would be utilized heavily during the critical growing period for most perennial grasses.

Management Common to All Alternatives: The Manning and Lower Owens Enclosures, Girds Creek Riparian and Agate Point Pastures would provide a total of 1,655 acres of undomestically grazed vegetation.

Alternative A:

Circle Bar Allotment The vegetation on about 310 acres along Bridge Creek and Meyers Canyon would improve at it's maximum rate.

Residual ground cover would increase and the seral status would advance.

Dead Dog Canyon Allotment The same as Alternative C.

Mary Misener Allotment The same as Alternative C.

Packsaddle Allotment Utilization of existing desirable species during the critical growing period should establish an upward trend and a advancement in ecological status.

Sutton Mountain Allotment - Cattle Option A heavy level of utilization (60 - 80%) would occur in Black Canyon and the smaller canyons in the Sutton Mountain Pasture.

Sutton Mountain Allotment - Sheep/Cattle Option Black Canyon and other drainages in the Sutton Mountain Pasture would have an upward trend and the seral status would advance due to the ability to herd the sheep and avoid use in the canyon bottoms.

Alternative B:

Dead Dog Canyon Allotment The same as Alternative C, but with a moderate level of utilization (41 - 60%) in the canyon bottoms due to the reduction in livestock use. Even with repeated early season use the trend should be upward and the seral status should advance.

Mary Misener Allotment The same as Alternative A.

Packsaddle Allotment The same as Alternative A.

Sutton Mountain Allotment - Cattle Option The same as Alternative A.

Sutton Mountain Allotment - Sheep/Cattle Option The same as Alternative A.

Project Proposals

Alternatives A, B, D and E - All Options: Some very localized vegetation disturbance would occur during installation of the cattleguards, spring developments and fence construction and relocation. The total amount of plants destroyed or injured would be greater under Alternatives A and B, Cattle Options. Under Alternative E the least amount of disturbance would occur.

9. Impacts to Visual Resources

Access Proposals

Alternatives D and E: The scenic quality would be enhanced by covering the 5.1 miles (4.3 acres) of existing ways with vegetation which is similar in appearance to the adjacent vegetation.

Upland Vegetation Manipulation Proposals

Alternative A: Treatment areas B, C, D, I, J, and K would be visible from a public road. A change in texture and color, on a total of 898 acres would occur after rangeland drills are used for seeding. The existing vegetation would be compressed and furrows made in the soil. This visual impact would last about six months or until the seeded and existing plants start emerging. The seeded plant species would change the texture, but it would be similar to the adjacent vegetation.

Alternative B: The same as Alternative A except the treatments would take place over ten years instead of five.

Alternatives D and E: The same as Alternative A.

Water Rights and Agricultural Land Proposals

Management Common to All Alternatives: A dense grove of cottonwood trees of varying sizes would occupy ten acres of the Priest Hole Field.

Alternative A: A combination of textures and colors could occur on the 813 acres of agricultural lands. If all twelve fields production crops were leased for agricultural purposes, more then likely it would be for some type of annual grain production. This activity would generate bare soil or stubble cover during the fall/winter period, green in the spring and yellow or beige color during the late spring and summer. Unleased fields would change texture due to a conversion from annual weedy species to perennial grasses and shrubs. It is possible for this to occur on all twelve fields.

Alternative B: The texture on the unleased fields would change due to the conversion from annual weedy species to perennial grass and shrub species.

Alternative D: The same as Alternative A except none of the fields would be in crop production, they would all be perennial grass, forb and shrub.

Livestock Grazing Proposals

Alternative C - Existing Situation

Circle Bar Allotment The indications of cow use would be present within about one mile of Bridge Creek and a quarter mile of the lower half of Meyers Canyon sometime between June and October.

Sutton Mountain Allotment The indications of cow use would be present within a mile of Bridge Creek, Stovepipe Springs and about one-half mile of the John Day River during April. This would also occur in the canyons on top of Sutton Mountain during May.

Range Project Proposals

All Alternatives and Options The necessary mitigating measures for VRM needs are part of the project specifications described in Appendix E, F and G.

10. Impacts to Water Resources

Environmental impacts from the proposed actions on water quantity and quality are addressed, in part, under the Fish/Aquatic and Riparian Resources sections.

Access Proposals

Alternative C - Existing Situation The total amount of sediment in Bridge Creek would be reduced. This would help towards meeting the Minimum Water Quality Standards set by the Oregon Department of Environmental Quality (DEQ).

Alternatives A and B: The amount of sediment in Bridge Creek may actually be increased.

Alternatives D and E: The least amount of sediment would be added to Bridge Creek.

Water Rights and Agricultural Land Proposals

Alternative C - Existing Situation Quantity A total of 3.781 c.f.s. could be withdrawn from Bridge Creek and 1.05 c.f.s. from the John Day River.

Alternative A: Quantity Potentially the full allocations of water rights, on public land, could be withdrawn from Bridge and Gable Creeks and the John Day River for crop irrigation.

Alternative B: Quantity A maximum of 4.546 c.f.s. could be removed from Bridge Creek and 1.05 c.f.s. from the John Day River for crop irrigation.

Alternative D: Quantity A maximum of 2.865 c.f.s. could be removed from Bridge Creek and 1.05 c.f.s. from the John Day River for crop irrigation.

Alternative E: Quantity No water would be removed for crop irrigation.

Livestock Grazing Proposals

Alternative C - Existing Situation:

Circle Bar Allotment Quantity Reduced late season flows would occur due to the loss of riparian vegetation along Bridge Creek and the lower half of Meyers Canyon.

Girds Creek Allotment Quantity The amount and duration of mid and late season flows, on lower Girds Creek, would increase very slowly over a long period of time as riparian vegetation becomes established and increases in density.

Alternative A:

Crown Rock Allotment The amount and duration of mid and late season flows, on Bear Creek, would increase as riparian vegetation becomes established and increases in density.

Alternatives B, D and E:

Circle Bar, Gable Creek, Crown Rock and Sutton Mountain Allotments (All Options) The volume and duration of late season flows would increase on Bridge, Gable, Nelson, Mud and Bear Creeks as riparian vegetation becomes established and increases in density.

11. Impacts to Wildlife Habitat Resources

Access Proposals

Alternative C - Existing Situation: The existing road closures have significantly reduced disturbance of wildlife species and damage to habitat. The existing situation allows the most acreage of habitat to be improved by continuing to prevent damage in nearly all areas. The amount of open road is 0.39 mile per sq. mile.

Alternative A: Vehicle use will have significant negative impacts on wildlife throughout the year. Disturbance of species and direct physical damage to habitat will be seen in all habitats, with potentially significant negative impacts in riparian areas (direct damage and increased sediments), reproduction and on winter ranges. The amount of open road is one (1.0) mile per sq. mile.

Alternative B: Seasonal closures will mitigate the negative impacts on winter ranges, but damage to riparian habitats and disturbance during the normal reproduction periods would still be present. Open roads during the summer would be one (1.0) mile per sq. mile and during winter/spring there would be .34 mile per sq. mile.

Alternative D and E: Significantly positive impacts due to more roads being closed permanently and rehabilitation of existing roads. This will provide increased wildlife habitat while at the same time reducing the amount of disturbances discussed for Alternatives A and B. In this alternative the amount of road open permanently .39 mile per sq. mile and open seasonally is .47 mile per sq. mile.

Noxious Weed Proposals

Alternative C - Current Situation: No significant positive benefits will be realized in areas left to natural reseeding except in areas that presently have low densities of noxious weeds.

Management Common to All Alternatives: Positive due to ability to eliminate noxious weeds before establishment is permanent. By inventorying an area for amphibians prior to treatment, appropriate control measures would be used to lower mortality.

Alternatives A and B: Overall positive impacts due to elimination or controlling of noxious weeds which are presently displacing native habitat. Some negative impacts possible depending on seed selected to replace the existing noxious weeds.

Alternative D: Generally positive benefits but with lowered benefits in areas that non-native species dominate following treatment.

Alternative E: Inability to use chemicals will greatly lessen the ability to eliminate or control noxious weeds. In some situations this will entirely eliminate the ability to control noxious weeds within reasonable costs.

Wilderness Study Area Proposals

All Alternatives - Generally this will be positive due to the reduction in disturbance to wildlife and no habitat loss from vehicle activity. One significant negative impact will be the inability to implement management, primarily prescribe burning, within existing juniper dominated sites to create diversity. Within these areas the fuels necessary to allow naturally occurring fires does not exist. Without the ability to cut some juniper to create the fuel load, fires will not occur. Approximately 3700 acres are presently in this condition. Without prescribed or natural fire this acreage will increase slowly as mature juniper grows above existing fine fuels and becomes fireproof due to no ladder fuels into the juniper canopy.

Upland Vegetation Proposals

Alternatives A and B: Based on observed trends on some of the early seral stage areas, in the long term vegetation diversity and total forage production will improve significantly with improved livestock management, without any seeding. Given this situation seedings will not be a benefit in the long term. In the short term, vegetation seedings would be more beneficial if only native species were used due to wildlife being adapted to native species. Some increased benefits may be realized from exotics in the short term due to quick increases in diversity and forage availability, however, as noted above these benefits will be reduced in the long term as native species will fill this requirement as ecological conditions improve.

Juniper manipulation would be a benefit by improving habitat diversity in an area dominated by mature juniper with a depauperate understory. Limitations on the size of trees to be cut will maintain a large number of snags, reduce ground temperatures during burning and in general simulate the results of a natural fire.

Alternatives D and E: Wildlife will be benefitted by prescribe burning to increase diversity and by seeding of native species on areas presently having less than 40% native species. Limiting acreage manipulated to less than 20% in any five year period will allow diversity to be increased while preventing excessive reductions in structural diversity during any one manipulation cycle.

Water Rights and Agricultural Land Proposals

Alternative C - Existing Situation: Water usage would continue to be controlled by existing leases. Controlling of noxious weeds on unleased fields would be limited due to letting treated areas reseed naturally as discussed in noxious weed section. Water rights would be maintained.

Alternative A: Maintenance of all agricultural fields would have low levels of benefits to wildlife since any gains in forage production would be offset by loss of overall habitat from cropping. Wildlife habitat in riparian areas would potentially be negatively impacted by reductions of the wetted area from increased withdrawals for irrigation.

Alternative B: Wildlife will be benefitted by maintaining irrigation on a variety of fields and converting the remaining fields to habitat with a high degree of habitat structure. Lease restrictions which will limit irrigation withdrawals to periods when minimum stream flows are met will protect riparian habitats.

Alternative D: Impacts essentially the same as B, except that native wildlife will be benefitted more by planting only native species.

Alternative E: All wildlife species except mule deer will be benefitted by this alternative. Mule deer would not be benefitted due to their ability to utilize the forage produced from agricultural. The remainder of species would benefit by having the fields in native cover with a high degree of species diversity, structure and cover.

Livestock Grazing Proposals

Alternative C - Existing Situation:

Circle Bar Allotment The grazing management in place for the past several years is providing improved upland habitat conditions throughout the allotment due to grazing stipulations and season of use. Significant improvement in riparian habitat condition has been seen by having allotment permitted to sheep grazing which utilizes herding, season of use and limiting use of riparian areas to watering only.

However, the grazing which would occur in this alternative due to administrative requirements (see Livestock Grazing section, Alternative C) would return the allotment to cattle use, with a summer use period. This would cause immediate and significant negative impacts on riparian and upland habitat conditions. Due to the summer use of the riparian area, all improvement would be eliminated in one or two grazing seasons. This would come about due to cattle staying in the riparian area during the those summer months. This is the same grazing which occurred historically in this area and the conditions that occurred when the Bureau acquired these lands would be recreated.

Crown Rock Allotment Existing situation is providing improved habitat conditions except the riparian area on Bear Creek. Proposed fencing of Bear Creek will eliminate this problem.

Dead Dog Allotment Existing use is generally allowing recovery of these allotments by reducing use levels and limiting period to use to spring only. The exception is within the bottoms of Dead Dog Cny. where utilization continues to be high, which eliminates potential for improvement.

Gable Creek Allotment Conditions are improving. The allotment had five years of total rest which allowed riparian habitat to increase in diversity and structure. Upland areas improved significantly in total cover, primarily from increases in the grass component. Improvement is expected to continue.

Girds Creek Allotment The use period on this allotment will continue the poor conditions in the riparian area.

Mary Misener Allotment Use period will maintain existing conditions on the allotment, which are good except in the area of Chapman Springs. Significant problem occurs when cattle from this allotment or Sutton Mtn. allotment graze the other allotment due to no fence separating the two allotments.

Packsaddle Allotment Season of use will continue poor habitat conditions due to use during growing season with no chance for regrowth. Wildlife habitat will decline in condition.

Sutton Mountain Allotment Grazing system will slow improvement of habitat conditions in Coyote and Stovepipe pastures since season of use will allow regrowth. Season of use on Sutton Mtn. pasture will maintain existing poor to fair conditions in riparian habitats. Upland conditions which are generally in late seral stages will slowly improve.

Overall Cumulative: Conditions within the CRMP area are presently improving due to changes in season of use and kind of livestock. Riparian habitats are improving with the exception of those within the Sutton Mountain Pasture. This improvement is primarily seen in increased total cover and shrub cover and diversity. Upland conditions are improving across the CRMP with increased herbaceous cover and species composition. These improvements are improving habitat for the major do species with particular benefits to ground nesting and foraging species and species which nest and forage within riparian shrub canopies. While the shrub structure hasn't increased enough to significantly increase the use by these species the trend is improving and as structure increases use of the areas is expected to increase also.

The one significant exception to the continuing improvement of the CRMP was that discussed in the Circle Bar allotment if summer cattle use is reinstituted.

Management Common to All Alternatives

Circle Bar Allotment The 92 pasture will provide diverse habitat for wildlife due to irrigation of forage, the development of perimeters into cover and the fencing off of Bridge Creek.

Manning Exclosure: Under all alternatives this exclosure will remain in place.

Girds Creek Exclosure: Under all alternatives this exclosure will remain in place. This will ensure stabilization of that area and allow riparian habitat to fully develop.

Alternative A

Circle Bar Allotment - Sheep Option: This proposed use would allow improvement of habitat to continue. Increased AUM levels will increase competition for forage, particularly forb species, which will have negative impacts on wildlife.

Circle Bar Allotment - Cattle/Sheep Option: This will also allow continued improvement of overall habitat, particularly in Bridge Creek due to complete fencing of the riparian area.

Crown Rock Allotment Proposed system will allow improvement of overall habitat conditions due to rotations. Bear Creek riparian habitat will improve significantly due to total exclusion.

Dead Dog Allotment Habitat conditions will decline due to increased use in canyon bottoms.

Gable Creek Allotment - Sheep Option Habitat conditions will continue to improve but spring use will increase competition for forbs.

Gable Creek Allotment - Cattle Option Habitat conditions will continue to improve due to use being in the winter period and stipulations on use on Gable Creek.

Girds Creek Allotment Habitat in uplands will be maintained and riparian habitat will improve due to Girds Creek exclosure.

Mary Misener Allotment Overall habitat would improve due to reduced AUM's and spring use.

Packsaddle Allotment Habitat will improve due to reduced AUM's and rotation in seasons.

Sutton Mountain Allotment - Cattle Option Due to rotation system and fencing of Bridge Creek overall habitat will improve with the exception of riparian areas within the Sutton Mtn pasture. Due to the later season of use these riparian areas will decline further in condition and not provide habitat for wildlife species.

Sutton Mountain Allotment - Cattle/Sheep Option This would provide generally improved habitat. This would be particularly the case for riparian areas, including the Sutton Mtn. pasture, due to herding of sheep away from those areas. Exceptions would be increased competition for forbs in the uplands and the potential for forb reduction due to use each year.

Alternative B:

Circle Bar Allotment Improvement in overall habitat will continue but reduced AUM levels will allow habitat conditions to improve faster than Alternative A. Grazing of riparian area will occur. This grazing should allow riparian conditions to continue to improve due to herding and the season of use being winter, but, some use will occur.

Crown Rock Allotment Same as Alternative A.

Dead Dog Allotment Impacts the same as Alternative A, except that negative impacts in canyon bottoms will be reduced. Level of use would continue to degrade those areas.

Gable Creek Allotment Same as Alternative A for sheep and cattle options except that reduced AUM's will benefit wildlife due to reduced competition for forbs and increased cover .

Girds Creek, Mary Misener and Packsaddle Allotments Same as Alternative A.

Sutton Mountain Allotment - Cattle Option Impacts generally the same as Alternative A. Changes in the season of use will still not allow full recovery of the riparian habitat in the Sutton Mountain Pasture, continuing the slow improvement of existing poor habitat conditions.

Sutton Mountain Allotment - Cattle/Sheep Option Impacts generally the same as Alternative A, except that competition for forbs and the potential reduction in forb availability is reduced due to the season of use changes.

Alternative D:

Circle Bar Allotment Same as Alternative B, except total AUM use be will reduced, providing more forage and increased cover for wildlife.

Crown Rock Allotment Significantly faster improvement in overall habitat conditions due to reduced AUM's.

Dead Dog Allotment Total non-use will allow habitat to improve significantly.

Gable Creek Allotment - Sheep Option Same as Alternative B.

Gable Creek Allotment - Cattle Option Increased benefits for wildlife due to use only in alternate years. Benefits will primarily be from increased overall cover.

Girds Creek Allotment Same as Alternative A.

Mary Misener Allotment Shortened season of use will allow increased growth in riparian areas, benefitting wildlife use of forage and cover.

Packsaddle Allotment Same as Alternative A.

Sutton Mountain Allotment Total elimination of livestock from the Sutton Mtn. pasture will allow riparian areas to significantly improve in condition.

Sutton Mountain Allotment - Cattle Option Overall conditions improved due to significantly reduced AUM's and elimination of livestock from Sutton Mountain Pasture.

Sutton Mountain Allotment - Cattle Option Reduced AUM's and restricted season of use will further improve habitat conditions.

Alternative E: Significant improvement in habitat conditions for wildlife species. The elimination of livestock would provide maximum habitat quantity and quality for all species, with the possible exception of mule deer.

12. Impacts to Wilderness Study Areas and ACEC Resources

Special Status Species

All Alternatives: Over time the majority of the two proposed wilderness areas would become dense forests of junipers. As a result, the plant communities associated with arrowleaf thelyody, Washington monkeyflower, pallid milkweed and hedgehog cactus would be eliminated.

C. Cumulative Impacts

No cumulative impacts were identified except as noted on page 125 for Impacts to Wildlife Habitat Resources under Alternative C, Existing Livestock Grazing Practices.

Part VII. List of Preparers and Signatures

A. List of Preparers

This document was prepared by an interdisciplinary team of Bureau of Land Management employees. The team was composed of the following individuals.

Specialists	Job Description	Plan Responsibility
Lyle Andrews	Range Conservationist	Team Coordinator and Range
Dennis Davis	Geologist	Geology and Minerals
Rick Demmer	Watershed and Riparian Specialist	Watershed and Riparian
Ron Halvorson	T and E Plant Specialist	T and E Plants
Brad Keller	Wildlife Biologist	Wildlife, and T and E Animals
James Sipple	Park Ranger	Visual Resource Management
Dan Wood	Outdoor Recreation Planner	Recreation
Joe Wichman	Supervisory Natural Resource Specialist	Range
Dave Young	Fisheries Biologist	Fisheries
John Zancanella	Archaeologist	Archaeology, Buildings and Paleontology

B. Non Bureau of Land Management Participants

The following individuals provided information that helped in the development of this document.

Name	Affiliation
Lyn Akers	Ranch Manager/BLM Lessee
Lee Belknap	Ranch Owner/BLM Lessee
Jack Collins	Ranch Owner/BLM Lessee
Tom Campbell	Ranch Owner/BLM Lessee
Brian Ferry	ODF&W
Stuart Garrett	Native Plant Society
Bill Kruger	Oregon Watershed Improvement Coalition
Bob Krein	ODF&W
Len Mathisen	Public Lands Restoration Task Force
Jim Morris	National Park Service
Corky Norton	Ranch Owner/BLM Lessee
Ron Quant	Wheeler County Soil & Water Conservation Board
Mary Beth Schmid	Soil Conservation Service
Eric Schulz	Oregon Natural Desert Association
Bill Smith	Ranch Owner/BLM Lessee

C. **Signatures**

Lyle Andrews
Responsible Official

March 8, 1995
Date

NEPA Requirements adequately met:

Environmental Coordinator

March 9, 1995
Date

APPENDICES

APPENDIX A. - Glossary

Aquatic - Living or growing in or on the water.

Ephemeral - A stream that flows only in direct response to precipitation, and whose channel is at all times above the water table.

Ecosystem - Interacting populations of organisms, plus their environment, that functions as a unit in nature.

Grazing Lease - A lease is a document authorizing livestock grazing use of public lands outside a grazing district under Section 15 of the Taylor Grazing Act.

Grazing System - The manipulation of livestock grazing to accomplish a desired result.

Habitat - A specific set of physical conditions that surround a species group of specific or a large community. In wildlife management, the major constituents of habitat are considered to be food, water, cover and living space.

Intermittent or seasonal - A stream that flows only at certain times of the year when it receives water from springs or from some surface source such as melting snow.

Impact - A spatial or temporal change in the human environment caused by man. The change should be (1) perceptible, (2) measurable, and (3) relatable through a change agent to a management activity or alternative.

Issue - A subject or question of widespread public discussion or interest regarding management of public lands within the Prineville District and identified through public participation.

No Surface Occupancy (NSO) - Property which is not physically occupied during exploration or extraction of any minerals.

Noxious Weeds - A weed specified by law as being especially undesirable, troublesome and difficult to control.

Off Road Vehicles (ORV) - Any motorized vehicle capable of, or designed for, travel on or immediately over land, water or other natural terrain, excluding: (1) any nonamphibious registered motorboat, (2) emergency vehicles, (3) vehicles in official use.

Off Highway Vehicle (OHV) - Any motorized vehicle capable of, or designed for, travel on or immediately overland, water, or other natural terrain, excluding (1) any nonamphibious, registered motorboat; (2) emergency vehicles; and (3) vehicles in official use.

Perennial - A stream that flows continuously. Perennial streams are generally associated with a water table in the localities through which they flow.

Period of Use - The time of livestock grazing on a range area based on the type of vegetation or stage of vegetative growth.

Redds - A spawning nest made in the gravel bed of a river or stream by salmon or steelhead.

Sediment - Soil, rock particles and organic or other debris carried from one place to another by wind, water or gravity.

Special Status Species - Plant or animal species not yet officially listed, but which are undergoing a status review or are proposed for listing according to a Federal Register notice published by the Secretary of the Interior or the Secretary of Commerce or according to comparable state documents published by state officials. The following definitions pertain to the various category listing of special status species.

> **C2- Category 2 Candidate** USFWS candidates which need additional information in order to determine whether proposing for formal listing is appropriate.
>
> **3C- Taxa** A taxa which has proven to be more abundant or widespread than previously believed and/or which has no identifiable threats.
>
> **LT- Listed Threatened**
>
> **SC- State Critical** Species for which listing as threatened or endangered is pending; or those for which listing as threatened or endangered may be appropriate if immediate conservation actions are not taken. Also considered critical are some peripheral species which are at risk throughout their range, and some disjunct populations.
>
> **SV- State Vulnerable** Species for which listing as threatened or endangered is not believed to be imminent and can be avoided through continued or expanded use of adequate protective measures and monitoring. In some cases the population is sustainable, and protective measures are being implemented; in others the population may be declining and improved protective measures are needed to maintain sustainable populations over time.
>
> **SU- State Undetermined Status** A species whose status is unclear. They may be susceptible to population decline of sufficient magnitude that they could qualify for endangered, threatened, critical, or vulnerable status, but scientific study will be required before a judgement can be made.

Split Estate - Property where the surface ownership is different from the subsurface mineral estate.

Structure - Natural or human placed feature providing stream channel characteristics and or fish habitat such as logs and boulders.

Upland - All rangelands other than riparian or wetland areas.

Water Quality - The chemical, physical and biological characteristics of water with respect to its suitability for a particular use.

Wetlands - Areas that are inundated by surface water or groundwater with a frequency sufficient to support, and under normal circumstances does or would support, a prevalence of vegetation or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction (Executive Order 11990).

Wilderness - Areas designated by congressional action under the 1964 Wilderness Act. Wilderness is defined as undeveloped Federal land retaining its primeval character and influence without permanent improvements or human habitation. Wilderness areas are protected and managed to preserve their natural conditions, which generally appear to have been affected primarily by the forces of nature, with the imprint of human activity substantially unnoticeable; have outstanding opportunities for solitude or for a primitive and confined type of recreation; include at least 5,000 acres or are of sufficient size to make practical their preservation, enjoyment, and use in an unimpaired condition; and may contain features of scientific, education, scenic, or historical value as well as ecological and geological interest.

Wilderness Study Area (WSA) - An area determined to have wilderness characteristics. Study areas will be subject to interdisciplinary analysis and public comment to determine wilderness suitability. Suitable areas will be recommended to the President and Congress for wilderness designation.

Visual Resource Management (VRM) - Management of the land, water, vegetation and animals that comprise the scenery of an area.

APPENDIX B. - Cultural Resource Use Categories

All public cultural resources known or anticipated to occur within a BLM administrative unit are classified according to the following described categories.

A. Scientific Use. This category applies to any cultural property determined to be suitable for consideration as the subject of scientific or historical study utilizing currently available research techniques, including study that would result in its physical alteration. Inclusion in this category signifies that the property need not be conserved in the face of an appropriate research or data recovery (mitigation) proposal.

B. Conservation for Future Use. This category is reserved for any unusual cultural resource which, because of scarcity, a research potential that surpasses the current state of the art, singular historic importance, cultural importance, or architectural interest, or comparable reasons, is not currently appropriate for consideration as the subject of scientific or historical study that would result in its physical alteration. A cultural property or location included in this category is considered worthy of segregation from all other land or resource uses, including cultural resource uses, that would threaten the maintenance of its present condition or setting, as pertinent, and it will remain in this use category until specified provisions are met in the future.

C. Management Use. This category may be applied to any cultural property considered most useful for controlled experimental study that would result in its physical alteration, to be conducted by the BLM or other entities concerned with the management of cultural properties. Expenditure of cultural properties or data may be justified for purposes of obtaining specific information that would ultimately aid in the management of other cultural properties. Experimental study may be aimed toward a better understanding of kinds and rates of natural or human-caused deterioration, effectiveness of protection measures, and similar lines of inquiry.

D. Sociocultural Use. This category is to be applied to any cultural resources that is perceived by a specified social and/or cultural group as having attributes that contribute to maintaining the heritage or existence of that group. This use category signifies that the cultural resource is to be managed in a way that takes those attributes into account, as applicable.

E. Public Use. This category may be applied to any cultural property found to be appropriate for consideration as an interpretive exhibit in place, a subject of supervised participation in scientific or historical study, or related educational and recreational uses by members of the general public.

F. Discharged Use. Assignment to this category means either that a cultural resource that was previously qualified for assignment to any of the categories defined above no longer possesses the qualifying characteristics for that use or for assignment to an alternative use; or that a cultural property's scientific use potential was so slight that it was exhausted at the time the property was recorded, and no alternative use is deemed appropriate. Where a cultural property is involved, allocation to discharged use also means that records pertaining to the property represent its only remaining importance, and that its location no longer presents a management constraint for competing land uses.

G. Compatible Uses. Cultural resources may be determined to have more than one appropriate use.

APPENDIX C. - Oil, Gas and Geothermal Leasing Stipulations

Standard Stipulations

Standard stipulations are listed in Section 6 of "Offer to Lease and Lease for Oil and Gas" Form 3100-11. They include the following:

Lessee shall conduct operations in a manner that minimizes adverse impacts to the land, air and water, to cultural, biological, visual and other resources, and to other land uses or users.

Prior to disturbing the surface of the leased lands, lessee shall contact BLM to be apprised of procedures to be followed and modifications or reclamation measures that may be necessary. Areas to be disturbed may require inventories or special studies to determine the extent of impacts to other resources.

If in the conduct of operations, threatened or endangered species, objects of historic scientific interest, or substantial unanticipated environmental effects are observed, lessee shall immediately contact lessor. Lessee shall cease any operations that would result in the destruction of such species or objects until appropriate steps have been taken to protect the site or recover the resources as determined by BLM in consultation with other appropriate agencies.

Special Stipulations

Special stipulations are attached to oil and gas leases to provide additional protection for fragile areas or critical resource values. The special stipulations are seasonal restrictions for critical wildlife habitat and no surface occupancy to protect special values or fragile areas. In the case of acquired lands, it is intended to protect the resource values for which the land was acquired.

APPENDIX D. - Allotment Selective Management Categories

All grazing allotments have been rated on the basis of the criteria listed below in order to group allotments into a management category. Three categories are used - Improve (I), Maintain (M) and Custodial (C). The ratings are used to help determine at what level grazing allotments receive range improvement funds, monitoring and management efforts.

Improve Category (I)

- o Present range condition is unsatisfactory
- o Allotments have moderate to high resource production potential and are producing at low to moderate levels
- o Serious resource-use conflicts and controversy exist
- o Opportunities exist for positive economic return from public investments
- o Present management appears unsatisfactory

Maintain Category (M)

- o Present range condition is satisfactory
- o Allotments have moderate or high resource production potential and producing near their potential (or trend is moving in that direction)
- o No serious resource-use conflicts and controversy exist
- o Opportunities may exist for positive economic return from public investments
- o Present management appears satisfactory

Custodial Category (C)

- o Present range condition is not a factor
- o Allotments have low resource production potential and are producing near their potential
- o Limited resource-use conflicts and controversy may exist
- o Opportunities for positive economic return on public investment do not exist or are constrained by technological or economic factors
- o Present management appears satisfactory or is the only logical practice under existing resource conditions

APPENDIX E. - Standard Spring Development Specifications

The following specifications would be used as the standard for development of all the proposed springs.

Fence Each spring area would be fenced to prevent damage to the collection systems and protect the riparian area. Four strand barbed wire fences would be constructed based on the specifications used for this type of fence in Appendix E.

Collection System Springs would be dug out using a backhoe or by hand to install the collection system. The focal point of the system would be the head box consisting of a length of three foot diameter metal culvert. Sections of perforated four to six inch diameter PVC pipe may be used to increase the water capturing capabilities of the system. To minimize sediment infiltration into the capture system, first, gravel or small rock would be laid down, followed by some type of screen material, the water capture system, more rock, screen material, rock and a final layer of soil. The head box would be filled with rock and covered with a lid.

Concrete or butyl rubber cutoff walls would be installed if necessary to stop the flow of water away from the collection area and concentrate water at the head box.

Pipe The water supply and overflow pipes would consist of one-and-a-half inch black plastic pipe with a 100 PSI rating. The overflow pipe would return any excess water back to the same drainage. All pipe would be buried to a depth of approximately sixteen inches.

Troughs Troughs would be placed on a level foundation of 8" by 8" treated timbers or similar type material. They may be made from steel, fiberglass, plastic or concrete. The colors may be green, brown or gray. Some type of bird ramp would be installed in each trough. Float valves would be installed as needed to control the rate of flow.

> Sheep: A low, long and narrow type trough would be most desirable. Generally, 2 feet high by 10 feet long; also, low round troughs may be used in some cases. Approximately 5 to 6 narrow troughs would be used per spring and 2 to 3 circular ones.
>
> Cattle: May be of any size or design which best suites the particular topography where the trough will bo installed.

APPENDIX F. - Standard Fence Specifications

Common to All Fences

1. Stress Panels would be installed every quarter mile. They would be built according to the specifications shown in the BLM Barbed Wire Fence, Type-A or Type-B, Drawing No. 02833-1 or 02833-2, dated March 9, 1984.

2. All corner panels would be either three-post or five-post depending on the amount of stress that would be placed on each corner. They would be built according to the specifications shown in the BLM Corner Panels, Drawing No. 02833-9, dated May 22, 1984.

   Live juniper trees with a DBH of eight inches, or greater, may be used in place of corner panels when they occur at the needed location. Tree limbs would be removed to a height of approximately six feet. Two two-by-fours or two-by-sixes, at least 30 inches long, would be nailed to the tree and the wires attached to the boards.

3. Gates would be four wires and would be built according to the specifications shown in the BLM Wire Gates diagram, Drawing No. 02833-6, dated May 30, 1984.

4. Vegetation clearing of trees and brush would be allowed only where it interferes with the efficient placement of wires and posts. All areas where vegetation would be removed must be flagged and authorized for vegetation removal prior to construction starting. An area no greater then four feet on either side of the fence line would be cleared. Only trees and brush would be removed, but no digging or pulling-out by the roots would be allowed. Also, no blading with heavy equipment would be authorized.

Specifications - Four Strand Barbed Wire Fence

Four strands of barbed wire, with the top wire no higher than 40 inches from the ground. The wire spacing would start with the bottom wire 16 inches from the ground, the next wire 6 inches above the first, the third wire 6 inches above the second, and the fourth wire 12 inches above the third. All fence posts would be metal, five-and-a-half feet long. Post color would depend on VRM considerations. The post spacing would be sixteen-and-a-half feet (one rod). One 30-inch-long wire stay would be placed halfway between each post with the bottom five inches removed. Metal clips would be used to fasten the wires to the fence posts. (See BLM Barbed Wire Fence, Type-A; Drawing No. 02833-1, dated March 9, 1984).

Live juniper trees may be used in place of fence posts when the trees are on the fence line. Tree limbs would be removed to a height of approximately six feet. Two two-by-fours or two-by-sixes, at least 30 inches long, would be nailed to the tree and the barbed wires stapled to the boards.

Specifications - Three Strand Barbed Wire Fence

Three strands of barbed wire, with the top wire no higher than 40 inches from the ground. The wire spacing would start with the bottom wire 16 inches from the ground, the next wire 10 inches above the first and the third wire 12 inches above the second. All fence posts would be metal and five-and-a-half feet long. Post color would depend on VRM considerations. The post spacing would be sixteen-and-a-half feet (one rod). One 30-inch-long wire stay would be placed halfway between each post with the bottom five inches removed. Metal clips would be used to fasten the wires to the fence posts. (See BLM Barbed Wire Fence, Type-B; Drawing No. 02833-2, dated March 9, 1984).

Live juniper trees may be used in place of fence posts as described above under the Specifications - Four Strand Barbed Wire Fence.

APPENDIX G. - Standard Cattleguard Specifications

A standard sized single-wide cattleguard would be 8 feet wide by 12 feet long. A standard sized double-wide cattleguard would constructed by placing two single-wide cattleguards end to end. It may be made from either steel or concrete. Precast concrete bases would be used as shown in the BLM Precast Concrete Base For Standard Steel Cattleguards, Drawing No. 08-33-9105-41-9, dated December, 1966.

APPENDIX H. - AUM Determinations by Alternative

The following tables explain the process used to determine livestock carrying capacities (AUMs) for each allotment and alternative.

Table 39
AUM Determinations - Alternative A

Allotment	Explanation
Carroll Rim	There were no public lands (PL) in this allotment prior to the Sutton Mountain Land Exchange so the AUM level is based on an extrapolation from existing PLs in the Circle Bar and Sutton Mountain Allotments. These capacities were based on a 1967 Ocular Reconnaissance Survey. There are no actual use records prior to the exchange, but conversations with the previous land owner indicate the use level was much higher then the extrapolated level.

Table 39
AUM Determinations - Alternative A

Allotment	Explanation
Circle Bar	The average licensed sheep use (930 AUMs) for the past four years, 1989 to 1992, plus 20% would be used (total 1,100 AUMs). The BLM had full control of grazing during this time period and prior to 1989, cattle grazed the area. For Alternative A, the additional 20% use (170 AUMs) should be within the allotment's carrying capacity. Based on past observations and monitoring studies, the 930 AUM level appears to be within the maximum limits of the vegetation resource.
Crown Rock	A combination of previously inventoried, extrapolation and estimated capacities was used. Ratings from a 1967 Ocular Reconnaissance Inventory were used for the pre-exchange public lands. The newly acquired lands were estimated based on a combination of professional judgement and extrapolation from the 1967 inventory. The estimated capacity of 327 AUMs should maintain an average utilization level of 60%, or less, on bunchgrasses.
Dead Dog Canyon	The average licensed grazing use for the last six years, 1987 to 1993, would be used (398 AUMs). Approximately 180 acres of PL and 6 AUMs would become part of the Girds Creek Riparian Pasture in the Girds Creek Allotment.
Gable Creek	The present estimated capacity of 210 AUMs plus 20% (total 252 AUMs). The estimated capacity was extrapolated from the 1967 Ocular Reconnaissance Inventory used on pre-exchange PLs in the Circle Bar Allotment. Prior to the exchange, there was no PL in this allotment.
Girds Creek	The same determination method was used for this allotment as used for the Crown Rock Allotment. To create the Girds Creek Riparian Pasture, 120 acres of PL and 9 AUMs would be combined with portions of three other allotments, along with 58 acres and 1 AUM from previously unallocated PL. The riparian pasture would have a total of approximately 43 AUMs, but these would not be authorized pending riparian recovery. The other part of the allotment would increase by 18 AUMs as a result of the Sutton Mountain Land Exchange.
Mary Misener	Alternative A would combine 675 acres of PL and 43 AUMs with the Sutton Mountain Allotment. The current lessee would be authorized the 43 AUMs of cattle use in Sutton Mountain. The amounts shown in Table 4 would remain with the Misener Allotment - 593 acres and 33 AUMs.

Table 39
AUM Determinations - Alternative A

Allotment	Explanation
Packsaddle Mountain	The carrying capacity is based on the 1967 Ocular Reconnaissance Inventory and no change to this estimate is proposed; however, the allotment would be reduced in the following ways: 80 acres of PL with 2 AUMs has transferred to private ownership; 80 acres of PL with 4 AUMs would be added to the Sutton Mountain Allotment; and, 180 acres of PL with 6 AUMs would go to the Girds Creek Riparian Pasture.
Sutton Mountain	The BLM had control over grazing use since 1989 so the authorized use from 1989 to 1992 was averaged. This average of 1,477 AUMs was determined to be the highest reasonable use level to be used for initiating a grazing system on newly acquired lands without the possibility of overusing the resource. The initial AUM allocation should be conservative since an ESI has not been completed and the same allocation would be used for both cattle and sheep. Approximately 287 acres of PL and 10 AUMs would become part of the Girds Creek Riparian Pasture in the Girds Creek Allotment.

Table 40
AUM Determinations - Alternative B

Allotment	Explanation
Carroll Rim	The estimated AUM level from Alternative A was reduced 20%. This level should be well below the actual carrying capacity and any future increases would be based on monitoring studies.
Circle Bar	The average licensed sheep use (930 AUMs) for the past four years, 1989 to 1992, would be used. The BLM had full control of grazing during this time period and prior to 1989, cattle grazed the area. Based on past observations and monitoring studies, the 930 AUM level appears to be within the maximum limits of the vegetation resource.
Crown Rock	The same as Alternative A.
Dead Dog Canyon	The average licensed grazing use for the last six years, 1987 to 1993, would be used (398 AUMs). Approximately 180 acres of PL and 6 AUMs would become part of the Girds Creek Riparian Pasture in the Girds Creek Allotment.
Gable Creek	The present estimated capacity of 210 AUMs would be used. The estimated capacity was extrapolated from the 1967 Ocular Reconnaissance Inventory used on pre-exchange PLs in the Circle Bar Allotment. Prior to the exchange, there was no PL in this allotment.
Girds Creek	The same as Alternative A.

Table 40
AUM Determinations - Alternative B

Allotment	Explanation
Mary Misener	The same as Alternative A.
Packsaddle Mountain	The same as Alternative A.
Sutton Mountain	The same as Alternative A.

Table 41
AUM Determinations - Alternative C

Allotment	Explanation
Carroll Rim	The same as Alternative B.
Circle Bar	The average licensed sheep use (930 AUMs) for the past four years, 1989 to 1992, would continue to be used. The Owens Fields have not been authorized for use since 1989 and this policy would continue due to the potential of adding unwanted sediment to Bridge Creek. Based on past observations and monitoring studies, the 930 AUM level appears to be within the maximum limits of the vegetation resource.
Crown Rock	The existing authorized use is for 55 AUMs in the spring and 55 AUMs in the fall. Fall use may commence anytime after October 1.
Dead Dog Canyon	The grazing use average for the last six years, 1987 to 1993, of 398 AUMs would continue.
Gable Creek	The same as Alternative B. The estimated capacity of 210 AUMs has not been monitored because the allotment had no use from 1988 to 1992 and only 50 AUMs were used in 1993.
Girds Creek	This table reflects an increase of 15 AUMs due to the new public lands in both pastures; however, only the Horse Mountain Pasture would probably be authorized for use in 1994 because of the lack of fencing in the Girds Creek Pasture and the need to accelerate riparian recovery along Girds Creek. The increase in AUMs was estimated using the same method as used for the Crown Rock Allotment.
Mary Misener	The present allotment is divided into two pastures by the rim of Sutton Mountain. This table reflects an increase of 15 AUMs due to the new public lands within the allotment. The increase in AUMs was estimated using the same method as used for the Crown Rock Allotment.
Packsaddle Mountain	As a result of the Sutton Mountain Land Exchange, 80 acre of public land with 2 AUMs is now in private ownership.

Table 41
AUM Determinations - Alternative C

Allotment	Explanation
Sutton Mountain	Under the existing situation, with the lack of fences and livestock watering developments, the average use level for the last three years (1990, 1991 and 1992) would be used (1,252 AUMs). Grazing use in the Agate Point Pasture has not been authorized since this became public land in 1990. This policy would continue in order to develop the wetland area along the John Day River.
Unleased Public Lands	These lands were previously in private ownership. A decision on their future use would be either made as a result of this CRMP document or wait other proposals are made. The AUM amount was estimated using the same method as used for the Crown Rock Allotment.

Table 42
AUM Determinations - Alternative D

Allotment	Explanation
Carroll Rim	The same as Alternative B.
Circle Bar	This use level is based on a combination of previously inventoried and estimated capacities. Inventoried lands were those present before the Sutton Mountain land exchange and their ratings were based on the 1967 Ocular Reconnaissance Inventory. Ratings for the newly acquired public lands were estimated based on professional judgement and extrapolation from the 1967 inventory.
Crown Rock	The same process for determining use levels was used for this allotment as in the Circle Bar Allotment.
Dead Dog Canyon	The same process for determining use levels was used for this allotment as in the Circle Bar Allotment. Approximately 180 acres of PL and 6 AUMs would become part of the Girds Creek Riparian Pasture in the Girds Creek Allotment.
Gable Creek	The same as Alternative B.
Girds Creek	The same as Alternative A.
Mary Misener	This alternative would combine 673 acres of public land and 43 AUMs with the Sutton Mountain Allotment. The remaining acres and AUMs are shown in Table 4. The current lessee would be authorized the 43 AUMs of cattle use in Sutton Mountain.
Packsaddle Mountain	The same as Alternative A.

Table 42
AUM Determinations - Alternative D

Allotment	Explanation
Sutton Mountain	This alternative purposes a reduced level of use to help accelerate the rate of recovery on the riparian and upland sites in poor condition. The 900 AUM level is 28% less then the current authorized use level. This would be an initial stocking level and would be closely monitored to determine its appropriateness. Approximately 287 acres of PL and 10 AUMs would become part of the Girds Creek Riparian Pasture in the Girds Creek Allotment.

APPENDIX I. - Summary: Grazing Allotment, Public Land Acres and Public Land AUMs

Table 43 gives a comprehensive view of the public land acre and AUM allocations for each allotment by alternative.

Table 43
Summary - Public Land Acres and AUMs by Allotment

Allotment	Alternative A		Alternative B		Alternative C		Alternative D		Alternative E	
	Acres	AUMs	Acres	AUMs	Acres	AUMs	Acres	AUMs	Acres	AUMs
Carroll Rim	2,572	126	2,572	101	2,572	101	2,572	101	0	0
Circle Bar	19,708	1,100	19,708	930	19,708	930	19,708	637	0	0
Crown Rock	4,241	192	4,241	192	4,241	110	4,241	105	0	0
Dead Dog Canyon	3,906	398	3,906	243	4,296	398	3,906	243	0	0
Gable Creek	5,025	251	5,025	210	5,025	210	5,025	210	0	0
Girds Creek	1,607	61	1,607	61	692	61	1,607	61	0	0
Mary Misener	593	33	593	33	1,268	76	593	33	0	0
Packsaddle Mountain	330	20	330	20	590	28	330	20	0	0
Sutton Mountain (Cattle) (Sheep)	25,315 *	1,477 *	25,315 *	1,477 *	24,905 *	1,252 *	25,315 *	489 519	0 *	0 *
Unleased	0	0	0	0	0	0	0	0	63,297	0
TOTALS (Sutton Cattle) TOTALS (Sutton Sheep)	63,297 *	3,658 *	63,297 *	3,267 *	63,297 *	3,166 *	63,297 *	1,899 1,929	63,297	0

APPENDIX J. - Projects

The following project tables list the proposed improvement projects for all the alternatives and options. Summary tables follow each project table. Table 50 summarizes all the proposed projects by alternative.

Fence Improvements

Table 44
Fence Improvements - All Alternatives

ALTERNATIVE	NAME	LOCATION	ALLOTMENT	DESCRIPTION
Cattle/Sheep Option A	Bridge Creek West Fence	T.11 S.,R.21E., Secs. 9, 14, 15 & 21	Circle Bar	New Length: 2.6 miles Type: Four strand, barbed wire No. of gates: 3

Table 44
Fence Improvements - All Alternatives

ALTERNATIVE	NAME	LOCATION	ALLOTMENT	DESCRIPTION
Cattle/Sheep Option A	Bridge Creek East Fence	T.11 S.,R.21E., Secs. 5, 9, 14, 15 & 16	Circle Bar	New Length: 4.5 miles Type: Four strand, barbed wire No. of gates: 3
A,B,D	Keys Flat Fence	T.11 S.,R.21E., Secs. 23, 24, & 26	Circle Bar	New Length: 1.5 miles Type: Four strand, barbed wire No. of gates: 2
A,B,D	Bear Creek No.1 Fence	T.10 S.,R.20E., Sec. 34 T.11 S.,R.20 E., Sec. 3, N½	Crown Rock	New Length: 2.0 miles Type: Four strand, barbed wire No. of gates: 3
A,B,D	Bear Creek No.2 Fence	T.10 S.,R.20E., Sec. 35 T.11 S.,R.20 E., Sec.s 2 & 3	Crown Rock	New Length: 2.5 miles Type: Four strand, barbed wire No. of gates: 4
A,B,D	Neighbors Fence	T.10 S.,R.20 E., Sec. 34, N½NW¼	Crown Rock	New Length: 1.0 mile Type: Four strand, barbed wire No. of gates: 2
A,B,D	Alder Fence	T.11 S.,R.20 E., Sec. 3, S½	Crown Rock	Relocation Length: 0.6 miles Type: Four strand, barbed wire No. of gates: 1
A,B,D	Willow Spring Fence	T.11 S.,R.20 E., Sec. 11 E½E½	Crown Rock/ Circle Bar	New Length: 0.9 miles Type: Four strand, barbed wire No. of gates: 2
A,B,D	Dead Dog Canyon Fence	T.10 S.,R.22 E., Sec. 5, SW¼NW¼	Dead Dog	New Length: 0.5 miles Type: Four strand, barbed wire No. of gates: 1
A,B,D	Clark Canyon Fence	T.9 S.,R.22 E., Sec. 33, SW¼SW¼ & T.10 S.,R.22 E., Sec. 4, NW¼NW¼	Dead Dog	New Length: 0.4 miles Type: Four strand, barbed wire No. of gates: 1
Cattle Option A,B,D Sheep/Cattle Option None	Black Canyon Fence	T.10 S.,R.21 E., Secs. 10, 11, & 14	Girds Creek/ Sutton Mountain	Reconstruction Length: 0.8 miles Type: Four strand barbed wire No. of gates: 1
A,B,D,E	Girds Creek Fence	T.10 S.,R.21 E., Secs. 11 & 12	Girds Creek	New Length: 0.7 miles Type: Four strand, barbed wire No. of gates: 1
A,B,D,E	Ice Fall Fence	T.10 S.,R.21 E., Sec. 12	Girds Creek	New Length: 0.3 miles Type: Four strand, barbed wire No. of gates: 1
Cattle Option A,B,D,E Sheep/Cattle Option A,B,D,E	Red Rock Fence	T.9 S.,R.20 E., Sec. 36 T.9 S.,R.21 E., Sec. 31	Sutton Mountain	New Length: 2.8 miles Type: Four strand, barbed wire No. of gates: 3
Cattle Option A,B,D,E Sheep/Cattle Option A,B,D,E	Section 32 Fence	T.9 S.,R.21 E., Sec. 32 T.10 S.,R.21 E., Sec. 5	Sutton Mountain	New Length: 1.4 miles Type: Four strand, barbed wire No. of gates: 2

Table 44
Fence Improvements - All Alternatives

ALTERNATIVE	NAME	LOCATION	ALLOTMENT	DESCRIPTION
Cattle Option A,B,D Sheep/Cattle Option None	Farrier Fence	T.10 S.,R.21 E., Secs. 3 & 10	Sutton Mountain/ Packsaddle Mountain	New Length: 1.0 miles Type: Four strand, barbed wire No. of gates: 2
Cattle Option A,B,D Sheep/Cattle Option A,B,D	Lower Bridge Creek Riparian Fence	T.10 S.,R.20 E., Secs. 11 & 14	Sutton Mountain	Reconstruction Length: 2.2 miles Type: Four strand, barbed wire No. of gates: 4
Cattle Option A,B,D Sheep/Cattle Option None	County Road Riparian Fence	T.10 S.,R.20 E., Secs. 2, 11, 13 & 14	Sutton Mountain	New Length: 0.4 miles Type: Four strand, barbed wire No. of gates: 0 Reconstruction Length: 2.3 miles Type: Four strand, barbed wire No. of gates: 4
Cattle Option A,B Sheep/Cattle Option None	River Pasture Fence	T.9 S.,R.21 E., Secs. 31 & 32 T.10 S.,R.21 E., Sec. 6 T.10 S.,R.20 E., Secs. 1 & 2	Sutton Mountain	New Length: 3.2 miles Type: Four strand, barbed wire No. of gates: 6 Reconstruction Length: 0.6 miles Type: Four strand, barbed wire No. of gates: 1

Table 45
All Alternatives
Summary - Fence Improvement Totals (Miles)

ALTERNATIVE	OPTION	NEW	RECONSTRUCTION	RELOCATION
A	Sutton - Cattle	25.7	5.9	0.6
A	Sutton - Sheep/Cattle	21.1	2.2	0.6
B	Sutton - Cattle	18.6	5.9	0.6
B	Sutton - Sheep/Cattle	14.0	2.2	0.6
C	Sutton - Cattle Only	0.0	0.0	0.0
D	Sutton - Cattle	15.4	5.3	0.6
D	Sutton - Sheep/Cattle	14.0	2.2	0.6
E	No Livestock	5.2	0	0

Cattleguard Improvements

Table 46
Cattleguard Improvements - All Alternatives

ALTERNATIVE	NAME	LOCATION	ALLOTMENT	DESCRIPTION
A,B,D,E	Cobble Cattleguard	T.10 S.,R.21 E., Sec. 11, NW¼SW¼	Girds Creek	New Metal double-wide, 22' width with concrete base
Cattle Option A,B,D,E Sheep/Cattle Option A,B,D,E	Twickenham Cattleguard	T.9 S.,R.21 E., Sec. 32, NE¼SW¼	Sutton Mountain	New Metal single-wide, 16' width with concrete base
Cattle Option A,B Sheep/Cattle Option None	Pole Line Cattleguard	T.10 S.,R.20 E., Sec. 2, NW¼SW¼	Sutton Mountain	New Metal single-wide, 16' width with concrete base
Cattle Option A,B Sheep/Cattle Option None	Priest Hole Cattleguard	T.10 S.,R.20 E., Sec. 6, SW¼SW¼	Sutton Mountain	New Metal single-wide, 16' width with concrete base
Cattle Option A,B Sheep/Cattle Option None	Big Fish Cattleguard	T.10 S.,R.20 E., Sec. 2, NE¼SW¼	Sutton Mountain	New Metal single-wide, 16' width with treated wood base

Table 47
All Alternatives
Summary - Cattleguard Improvement Totals (Each)

ALTERNATIVE	OPTION	16' WIDTH	22' WIDTH
A	Sutton - Cattle	4	1
A	Sutton - Sheep/Cattle	1	1
B	Sutton - Cattle	4	1
B	Sutton - Sheep/Cattle	1	1
C	Sutton - Cattle Only	0	0
D	Sutton - Cattle	1	1
D	Sutton - Sheep/Cattle	1	1
E	No Livestock	1	1

Spring Developments

In the Circle Bar and Gable Creek Allotments all the proposed spring developments would consist of watering troughs best suited for sheep use under Alternatives A, B, and D. Two-Way Spring Development would have sheep troughs located in the Circle Bar Allotment and a cattle trough in the Crown Rock Allotment.

In the Sutton Mountain Allotment, under the Sheep/Cattle Option in Alternatives A, B, and D, the following proposed spring developments would use watering troughs best suited for both sheep and cattle use: Pats Cabin, Upper and Lower Coyote Canyon, Trail Head, Stovepipe, Ianc, County Road, Green and Hidden Spring Developments. Under the Cattle Options of Alternatives A, B and D, all the troughs would be best suited for cattle.

Table 48
Spring Improvements - All Alternatives

ALTERNATIVE	NAME	LOCATION	ALLOTMENT	DESCRIPTION
A,B,D	Hidden Spring	T.10 S.,R.22 E., Sec. 31, SE¼SW¼	Carroll Rim	Reconstruction Overflow pipe 150'; exclosure fence 1,000'.
A,B,D	Two-Way Spring	T.11 S.,R.20 E., Sec. 12, SW¼NW¼	Circle Bar	Reconstruction Replace head box; pipe 1,800'; overflow pipe 100'; exclosure fence 1,300'; supply Crown Rock & Circle Bar Allots.
A,B	Rifle Canyon Spring	T.11 S.,R.20 E., Sec. 13, NE¼SW¼	Circle Bar	New Head box; pipe 300'; overflow pipe 100'; exclosure fence 1,000'.
A,B,D	Refrigerator Spring	T.11 S.,R.21 E., Sec. 26, SW¼NW¼	Circle Bar	Reconstruction Replace head box; pipe 1,000'; overflow pipe 200'; exclosure fence 2,200'.
A,B,D	Sargent Butte Spring	T.11 S.,R.21 E., Sec. 17, SE¼NW¼	Circle Bar	Reconstruction Replace head box; pipe 300'; overflow pipe 150'; exclosure fence 1,000'.
A,B,D	Stage Stop Spring	T.11 S.,R.21 E., Sec. 15, NE¼NE¼	Circle Bar	Reconstruction Replace head box; pipe 700'; overflow pipe 200'; exclosure fence 1,000'.
A,B	Bones Spring	T.11 S.,R.21 E., Sec. 9, SE¼SE¼	Circle Bar	Reconstruction Replace head box; pipe 300'; overflow pipe 200'; exclosure fence 1,000'.
A,B,D	Fossil Tooth Spring	T.11 S.,R.21 E., Sec. 4, SW¼SW¼	Circle Bar	Reconstruction Replace head box; pipe 200'; overflow pipe 250'; exclosure fence 1,500'.
A,B,D	1870 Cabin Spring	T.11 S.,R.21 E., Sec. 12, NE¼NW¼	Circle Bar	Reconstruction Pipe 900'; overflow pipe 300'; exclosure fence 2,600'.
A,B,D	Road Cut Spring	T.10 S.,R.21 E., Sec. 29, SE¼SE¼	Circle Bar	Reconstruction Replace head box; pipe 1,000'; overflow pipe 600'; exclosure fence 3,400'.
A,B,D	Bear Creek Hydroram	T.10 S.,R.20 E., Sec. 35, NW¼SW¼	Crown Rock	New Hydroram system in Bear Creek; 0.4 miles buried PVC pipe, 1" dia.; overflow pipe 150'.
A,B,D	White Clay Spring	T.10 S.,R.20 E., Sec. 35, NW¼SE¼	Crown Rock	New Head box; pipe 150'; overflow pipe 150'; exclosure fence 1,000'.

Table 48
Spring Improvements - All Alternatives

ALTERNATIVE	NAME	LOCATION	ALLOTMENT	DESCRIPTION
A,B	Dead Dog Spring	T.10 S.,R.22 E., Sec. 8, SE¼SW¼	Dead Dog Canyon	New Head box; pipe 150'; overflow pipe 150'; exclosure fence 2,000'.
A,B	Trail Canyon Spring	T.10 S.,R.22 E., Sec. 8, SE¼NE¼	Dead Dog Canyon	New Head box; pipe 150'; overflow pipe 100'; exclosure fence 1,000'.
A,B	Tilley Canyon Spring	T.10 S.,R.22 E., Sec. 9, NW¼NE¼	Dead Dog Canyon	Reconstruction Replace head box; pipe 350'; overflow pipe 150'; exclosure fence 2,500'.
A,B	Juniper Gap Spring	T.10 S.,R.22 E., Sec. 10, NE¼SW¼	Dead Dog Canyon	New Head box; pipe 150'; overflow pipe 100'; exclosure fence 1,000'.
A,B	Clark Canyon Spring	T.10 S.,R.22 E., Sec. 4, NE¼NE¼	Dead Dog Canyon	New Head box; pipe 450'; overflow pipe 250'; exclosure fence 3,800'.
A,B,D	Broken Hip Spring	T.11 S.,R.21 E., Sec. 35, SW¼SW¼	Gable Creek	Reconstruction Existing and functional, No. 734627. Relocate 200' of overflow pipe.
A,B,D	Mud Spring	T.12 S.,R.21 E., Sec. 4, SW¼NE¼	Gable Creek	New Fence 1,000'.
A,B,D	Pee Wee Spring	T.11 S.,R.21 E., Sec. 34, SW¼SE¼	Gable Creek	Reconstruction Existing and functional, No. 734625. Relocate overflow pi 150'.
A,B,D	Bitterbrush Spring	T.11 S.,R.21 E., Sec. 29, NE¼NE¼	Gable Creek	New Head box; pipe 150'; overflow pipe 150'; exclosure fence 1,000'.
Cattle Option A,B,D Sheep/Cattle Option A,B,D	Pats Cabin Spring	T.10 S.,R.20 E., Sec. 16, SW¼SW¼	Sutton Mountain	Reconstruction Existing and functional, No. 734714. Additional collectio pipe needed.
Cattle Option A,B,D Sheep/Cattle Option A,B,D	Upper Coyote Canyon Spring	T.10 S.,R.20 E., Sec. 9, SE¼SW¼	Sutton Mountain	Reconstruction Replace head box; pipe 100'; overflow pipe 100'; exclosure fence 800'.
Cattle Option A,B,D Sheep/Cattle Option A,B,D	Lower Coyote Canyon Spring	T.10 S.,R.20 E., Sec. 10, SW¼NW¼	Sutton Mountain	Reconstruction Replace head box; pipe 125'; overflow pipe 150'; exclosure fence 1,000'.
Cattle Option A,B,D Sheep/Cattle Option A,B,D	Trail Head Spring	T.10 S.,R.21 E., Sec. 18, SE¼SW¼	Sutton Mountain	Reconstruction Replace head box; pipe 150'; overflow pipe 150; exclosure fence 3,000'.
Cattle Option A,B,D Sheep/Cattle Option A,B,D	Stovepipe Spring	T.10 S.,R.21 E., Sec. 7, NW¼SW¼	Sutton Mountain	New Fence 4,200'.

Table 48
Spring Improvements - All Alternatives

ALTERNATIVE	NAME	LOCATION	ALLOTMENT	DESCRIPTION
Cattle Option A,B,D Sheep/Cattle Option A,B,D	Corral Spring	T.10 S.,R.21 E., Sec. 12, SE¼NE¼	Sutton Mountain	Reconstruction Replace head box; pipe 300'; float valve; overflow pipe 150'; exclosure fence 800'.
Cattle Option A,B,D Sheep/Cattle Option A,B,D	Zanc Spring	T.10 S.,R.21 E., Sec. 6, SE¼SW¼	Sutton Mountain	Reconstruction Head box; pipe 200'; overflow pipe 150'; exclosure fence 1,500'.
Cattle Option A,B,D Sheep/Cattle Option A,B,D	County Road Spring	T.9 S.,R.21 E., Sec. 32, NE¼SW¼	Sutton Mountain	Reconstruction Head box; pipe 200'; overflow pipe 150'; exclosure fence 2,000'.
Cattle Option A,B,D Sheep/Cattle Option A,B,D	Green Spring	T.10 S.,R.20 E., Sec. 1, NE¼SE¼	Sutton Mountain	Reconstruction Head box; pipe 150'; overflow pipe 350'; exclosure fence 2,000'.
Cattle Option A,B,D Sheep/Cattle Option A,B,D	Lamb Canyon Spring	T.10 S.,R.21 E., Sec. 23, NE¼SE¼	Sutton Mountain	Reconstruction Replace head box; pipe 100'; overflow pipe 150'; exclosure fence 1,000'.

Table 49
All Alternatives
Summary - Spring Improvement Totals (Each)

ALTERNATIVE	OPTION	NEW	RECONSTRUCTION	HYDRORAM
A	Sutton - Cattle	11	20	1
A	Sutton - Sheep/Cattle	11	20	1
B	Sutton - Cattle	11	20	1
B	Sutton - Sheep/Cattle	11	20	1
C	Sutton - Cattle Only	0	0	0
D	Sutton - Cattle	5	18	1
D	Sutton - Sheep/Cattle	5	18	1
E	No Livestock	0	0	0

Table 50
Summary - Project Totals By Alternative

Alternative	Option	Fences (Miles)			Cattleguards (Each)		Srings (Each)		
		New	Reconstruction	Relocation	16' Width	22' Width	New	Reconstruction	Hydroam
A	Sutton - Cattle	25.7	5.9	0.6	4	1	11	21	1
A	Sutton - Sheep/Cattle	21.1	2.2	0.6	1	1	11	21	1
B	Sutton - Cattle	18.6	5.9	0.6	4	1	11	21	1
B	Sutton - Sheep/Cattle	14.0	2.2	0.6	1	1	11	21	1
C	Sutton - Existing Situation	0.0	0.0	0.0	0	0	0	0	0
D	Sutton - Cattle	15.4	5.3	0.6	1	1	5	19	1
D	Sutton - Sheep/Cattle	14.0	2.2	0.6	1	1	5	19	1
E	No Livestock	5.2	0.0	0.0	1	1	0	0	0

APPENDIX K. - Visual Resource Management (VRM) Classifications

Class I - The objective of this class is to preserve the existing character of the landscape. Natural ecological changes and very limited management activities are allowed. However, any change created within the characteristic landscape must not attract attention.

Class II - The objective of this class is to retain the existing character of the landscape. Changes in any of the basic elements caused by a management activity should not be evident in the characteristic landscape. The level of change should be low and must repeat the basic elements of form, line, color, and texture found in the predominant natural features existing within the landscape. Changes are seen, but do not attract the attention of the casual observer.

Class III - The objective of this class is to partially retain the existing character of the landscape. Changes to the basic elements caused by a management activity are evident, but should remain subordinate to the existing landscape and should not dominate the view of the casual observer. Changes should be moderate and repeat the basic elements found in the predominant natural features of the landscape.

Class IV - The objective of this class is to provide for management activities which require major modification of the existing character of the landscape. Changes may be high and attract attention. Activities may be dominant features of the landscape but every attempt should be made to minimize the impact of activities through careful location, minimal disturbance, and repeating the basic elements of the natural features of the landscape.

Class V - The objective of this class is to provide for areas where activities have disturbed the natural landscape to a point where rehabilitation is needed to bring it up to one of the four other classifications. The level of rehabilitation will be determined by the minimal standards of the desired management class for the area.

APPENDIX L. - Special Status Terrestrail Species

Special status terrestrial vertebrate species that may occur in the project area include the following.

Amphibians / Reptiles:
Western toad (*Bufo boreas*), SV
Spotted frog (*Rana pretiosa*), *C2, SU*

Birds:
Northern goshawk (*Accipiter gentilis*), *C2, SV*
Burrowing owl (*Athene cunicularia*), SC
Ferruginous hawk (*Buteo regalis*), C2, SC
Swainson's hawk (*Buteo swainsoni*), 3C, SV
Bald eagle (*Haliaeetus leucocephalus*), *LT*
Loggerhead shrike (*Lanius ludovicianus*), *C2, SU*
Lewis' woodpecker *(Melanerpes lewis)*, SC
Mountain quail (*Oreortyx picta*), *C2*
Flammulated owl *(Otus flammeolus)*, SC
Western bluebird (*Sialia mexicana*), *SV*
Bank swallow *(Riparia riparia)*, *SU*
Tricolored blackbird *(Agelaius tricolor)*, *C2, SV*
Long-billed curlew *(Numenius americana)*, 3C

Mammals:
White-tailed jackrabbit (*Lepus townsendii)*, SU
Fringed myotis (*Myotis thysanodes)*,
Townsend's big-eared bat (*Plecotus townsendii), C2, SC*

Definitions

C2- Category 2 Candidate USFWS candidates which need additional information in order to determine whether proposing for formal listing is appropriate.

3C- Taxa A taxa which has proven to be more abundant or widespread than previously believed and/or which has no identifiable threats.

LT- Listed Threatened

SC- State Critical Species for which listing as threatened or endangered is pending; or those for which listing as threatened or endangered may be appropriate if immediate conservation actions are not taken. Also considered critical are some peripheral species which are at risk throughout their range, and some disjunct populations.

SV- State Vulnerable Species for which listing as threatened or endangered is not believed to be imminent and can be avoided through continued or expanded use of adequate protective measures and monitoring . In some cases the population is sustainable, and protective measures are being implemented; in others the populatio may be declining and improved protective measures are needed to maintain sustainabl populations over time.

SU- State Undetermined Status A species whose status is unclear. They may be susceptible to population decline of sufficient magnitude that they could qualify for endangered, threatened, critical, or vulnerable status, but scientific study will be required before a judgement can be made.

APPENDIX M. - Wilderness Study Area (WSA) Inventory Summaries

There were three intensive inventories for wilderness values done in the CRMP area. Each inventory contains a Proposed Decision. (See Maps E and X).

Unit Number: 5-84
Unit Name: Sutton Mountain

Description

Size: This unit contains 29,400 acres of public land with 40 acres of sate inholding.

Location: This unit is located approximately four miles north of Mitchell.

Boundaries: The southern side is bounded by a road and a state highway. The western side is bounded by a county road. The northern side is bounded by private property. The eastern side is bounded by a county road and private property.

Physical Characteristics: This unit contains nearly all of Sutton Mountain and its slopes. The beginning elevation is approximately 2,000 feet and an elevation of 4,694 feet is found at the summit of the mountain.

The mountain is composed of uplifted basalt rock formations on top of an ash layer the same as found in the Painted Hills. The ash layer is exposed at the base of th western slopes of the mountain. These ash areas are badland like formations of white through red earth. The mountain presents an abrupt precipice along its west flank and broad slopes on its north and east. the top of the mountain is a large sloping plateau. Three canyons (two on the east and one on the west) cut into the mountain.

The dominant vegetation is Idaho fescue, bluebunch wheatgrass, sagebrush, and juniper. Two cacti are found on Sutton Mountain including hedgehog cactus which provides an appealing floral display during spring. Several large ponderosa pine and douglas fir trees can be found in the canyons.

During spring run-off, water can be found flowing in the canyons. Numerous cascades and waterfalls, some as high as 60 feet, are found in the canyons on the west side of the mountain.

Wilderness Criteria

Size: This unit meets the minimum size criteria.

Naturalness: The unit appears to have been primarily effected by the forces of nature. Approximately 10 miles of ways, 9 developed springs, and approximately 6 miles of fence exist in the unit. These features do not dominate the landscape. A constructed vehicle route, approximately 3 miles long, is located near the summit of the mountain. This route has not been maintained nor has it received regular use. Consequently, it is covered by perennial bunch grasses and shrubs. Two areas of the route, approximately 1/3 mile each, are evident where it was cut into the side of the slope.

A crested wheatgrass seeding, ranch remains, drill hole, car camping areas, and gravel quarry exist on the southeastern edge of the unit adjacent to state highway 207. Ranch remains, gravel quarries, a remote weather station, a road, and an area used by off-road vehicles exists on the southern edge of the unit. Powerlines, a cemetery, a loading ramp with electrical power, and a developed spring and pipeline are located in the western and northern edge of the unit. These features are dominant in the landscape.

Solitude: Outstanding opportunities for solitude exist in the unit. Along the edges of the unit the sites and sounds of man are evident. However, it is easy to quickly escape the sights and sounds by traveling into the unit. The top of the mountain provides views that look down onto several roads, structures, and alterations of the landscape. These are distant views and the overall feeling is one of separation and solitude.

Recreation: Opportunities for hiking, horseback riding, nature observation, backpacking, and other primitive and unconfined types of recreation are abundant. Short to moderate length trips are possible during all seasons of the year.

Supplemental Values: The unit contains paleontologic resources, two special status plant species, 3 plants species considered by BLM as "tracking species", several historic cabins, and outstanding scenic areas.

Proposed Decision: Designate 29,020 acres a Wilderness Study Area, eliminate 380 acres from further wilderness review. See map X.

Rationale: This unit appears to be affected primarily by the forces of nature, and offers outstanding opportunities for solitude and primitive and unconfined forms of recreation. The constructed vehicle route located near the top of the mountain does not meet the definition of a road and is not dominant in the landscape. The areas which have been eliminated are on the south eastern and western sides based on the presence of powerlines, gravel quarries, fields, and other impacts which diminish the wilderness characteristics of the area.

Unit Number: 5-85
Unit Name: Pats Cabin

Description

Size: This unit contains 9,970 acres of public land.

Location: The unit is approximately eight miles northwest of Mitchell.

Boundaries: The southern and north eastern sides are bounded by roads. The northern and south eastern sides are bounded by property lines. The western side is bounded by the Sutton Mountain CRMP planning area boundary.

Physical Characteristics: This unit consists of numerous rounded ridges generally sloping to the east. Some outcrops of basalt rock are found and an ash layer, the same as that found in the Painted Hills is exposed in some areas. Three main canyons direct the unit. These canyons carry water during spring run-off.

The dominant vegetation is Idaho fescue, bluebunch wheatgrass, sagebrush and juniper.

Wilderness Criteria

Size: This unit meets the minimum size criteria.

Naturalness: The unit appears to have been effected primarily by the forces of nature.

A road approximately 3 miles long is located in the bottom of Pats Cabin Canyon. Approximately 13 miles of fence and 5 developed springs exist in the unit. The effect of these developments is only in the immediate vicinity.

A constructed road is located in the western portion of the unit. Powerlines irrigation ditches, ranch remains, roads, and agricultural fields, are located in the north eastern portion of the unit. These features dominate this portion of the unit.

Solitude: Outstanding opportunities for solitude exist throughout the unit. The sights and sounds of man are easily escaped by traveling into the unit.

Recreation: Opportunities for hiking, horseback riding, nature observation, backpacking, and other primitive and unconfined types of recreation are abundant in this unit. Short trips are possible during all seasons of the year.

Supplemental Values: The unit is suspected to contain plants considered by BLM as "tracking species." Several historic cabins and a historic sheep barn are located in the unit.

Proposed Decision: Designate 9,920 acres a Wilderness Study Area, eliminate 50 acres from further wilderness review. See map X.

Rationale: This unit appears to be affected primarily by the forces of nature and offers outstanding opportunities for solitude and primitive and unconfined forms of recreation. The areas which have been eliminated are on the north eastern edge of the unit and contain developments which do not conform to the requirements for Wilderness designation.

Unit Number: 5-86
Unit Name: Sand Mountain

Description

Size: This unit contains 4,000 acres of public land.

Location: This unit is located approximately four miles northeast of Mitchel and adjacent to the Painted Hills Unit, John Day Fossil Beds National Monument.

Boundaries: The south and west sides are bounded by private property, the north is bounded by the John Day Fossil Beds National Monument, and the east is bounded b a county road.

Physical Characteristics: This unit contains Sand Mountain, which is the highest point of the immediate Painted Hills area. Sand Mountain is a rhyolitic intrusio through Columbia River Basalt. Numerous ridges and draws slope away from the mountain creating steep rolling topography. A layer of volcanic ash with colorations of white through red is exposed in areas at the base of the slopes.

The dominant vegetation is Idaho fescue, bluebunch wheatgrass, sagebrush, and juniper. Two cacti are found in the unit including hedgehog cactus which provides an appealing floral display during spring.

Several seeps and springs are found in the unit, but flowing water is rarely present.

Wilderness Criteria

Size: This unit does not beet the minimum size criteria.

Naturalness: The unit appears to have been effected primarily by the forces of nature. Evidence of two vehicle ways can be found, although these ways have almost entirely reverted back to a natural state. Two developed springs are located in the unit These developments are not dominate in the existing landscape.

Solitude: Outstanding opportunities for solitude exist throughout the northern portion of the unit. The southern portion of the unit, including the top to the mountain, is affected by the sights and sounds of US Highway 26.

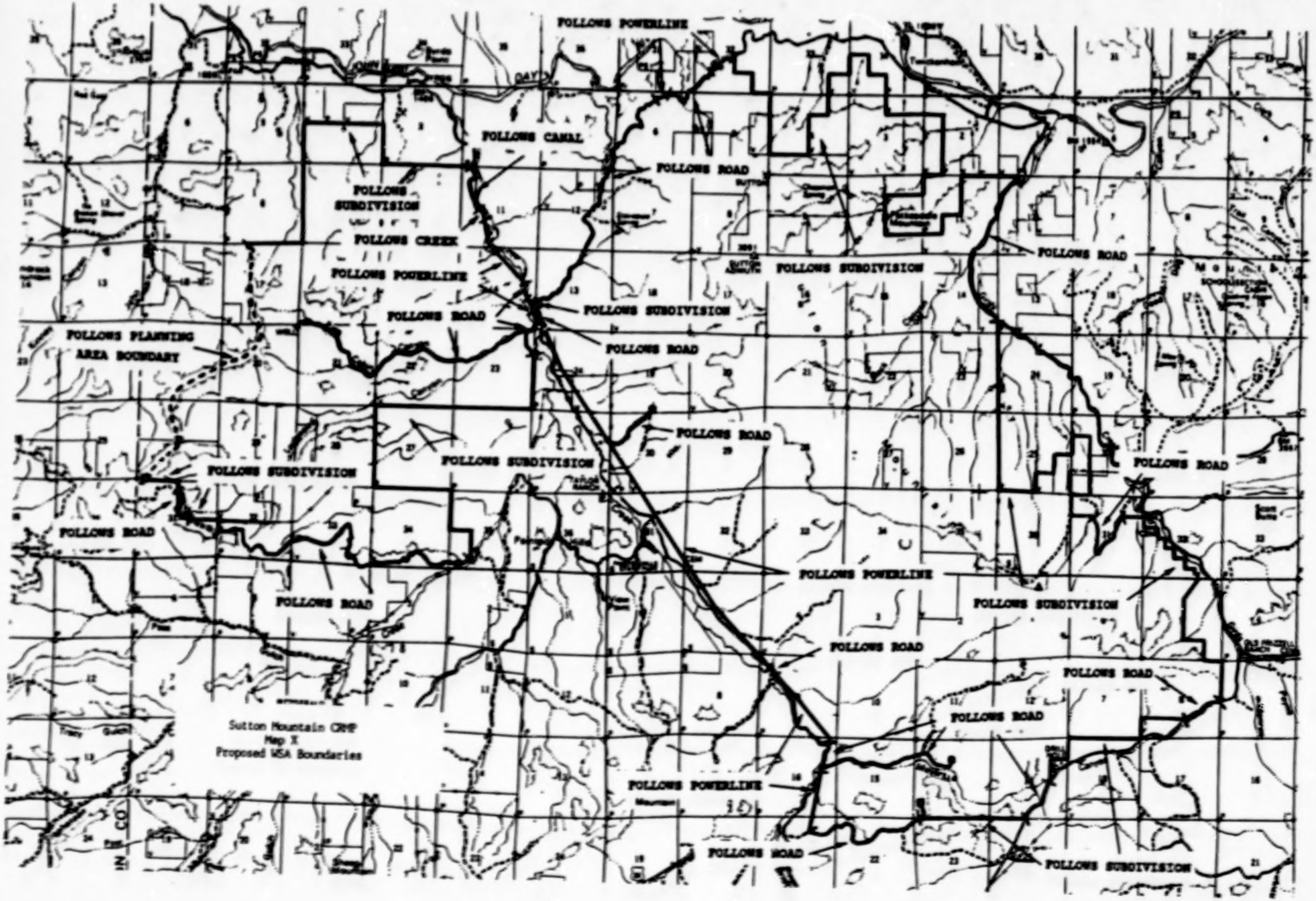
Recreation: Opportunities for hiking, nature observation, and some horseback riding, are found in this unit. Short length trips are possible all seasons of the year.

Supplemental Values: This unit contains paleontologic resources, plants considered by BLM as "tracking species", and outstanding scenic areas.

Proposed Decision: Eliminate from further wilderness review. See map E.

Rationale: This unit does not meet the minimum size criteria. The unit and adjacent Park Service lands, if considered in association one with the other, have the potential for being of sufficient size and characteristics for further wilderness review. The Park Service lands, however, are not being considered for wilderness designation. This unit, by itself, would not be practical for management as wilderness.

155


Sutton Mountain CRMP
Map X
Proposed WSA Boundaries

155

END

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